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The coaching process in international rugby union: an ethnographic case study.

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ABSTRACT

Despite widespread acknowledgement of the complex, holistic and context-specific nature of the coaching process, research has rarely focused upon coaching practice as a comprehensive, integrated and situated endeavour. This thesis examined the coaching process of the head coach of a national women's rugby union team using data collected throughout a competitive international season. A methodological bricolage consisting of ethnographic participant observation, systematic practice observations, audio-visual recordings, semi-structured interviews and stimulated recall interviews was adopted to investigate both the broad parameters and detailed properties of the coach's work. Analysis of the data led to the development of a grounded theory of the coaching process, which was found to be constituted by the interactions of the coach, a variety of associates, and the coaching context. Numerous and interrelated personal, social and contextual factors were identified that functioned to create opportunities and challenges that the coach responded to through their practice. The findings contribute to a fuller understanding of the complexity and holism of the coaching process in top-level women's rugby union, as well as a valuable conceptual framework and methodology to guide and conduct future research in different contexts.

DECLARATION OF ORIGINALITY

I hereby declare that this thesis and the research work reported herein was composed and originated entirely by myself in the Moray House School of Education at the University of Edinburgh.

Edward Thomas Hall

07th May 2015.

DEDICATION

I dedicate this work to three people. First to my son, Rafferty, who was born on the 3rd January 2013. You have provided the best kind of distraction from my research and also the best reason to get it finished. Without wishing to diminish the challenge or undermine the quality of this work, the precious time we spend playing together has already taught me more about coaching than anything else is ever likely to.

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Chapter 1

INTRODUCTION

...coaches' stories are complex, messy, fragmented and endlessly fascinating...
(Jones, Armour and Potrac, 2004 p.1)

This insightful point resonates with my own practical coaching experience, largely accrued in the sport of rugby union over the last 12 years. Reflecting upon my work with youth, adolescent and adult teams, at novice, representative and international-levels, supporting male and female athletes, and in voluntary and paid positions, I am immediately struck by the intricacies of my various coaching roles. Furthermore, each of my roles has been vast in scope and highly involving rather than narrow and perfunctory, and I have had to respond to countless challenges and opportunities by adapting, refining and improving my practice¹. I am also conscious that my continuing attempts to make sense of these practical experiences have contributed to the deepening of my fascination with understanding in greater depth the complexity of the coaching process and thus, to the development of this thesis.

As a scholar of coaching during the same period, I have also become increasingly aware of gaps between my own lived experiences and how the coaching process has been examined and represented in the coaching literature. Following the field's positivist traditions, research has often reduced the scope and complexity of the coaching process in order to isolate manageable parts of the whole for investigation by quantitative methods (Gilbert and Trudel, 2004a; Cushion, Armour and Jones, 2006). For example, the measurement of coach behaviour has been highly popular (Kahan, 1999), and different studies have consequently argued that reductive fragments of a coach's practice (e.g., communication, planning or decision-making) are of the greatest importance in the coaching process (Cushion *et al.*, 2006). Accordingly, the coach has been treated as the "other", to be studied from a safe distance by researchers concerned for achieving the objectivity and neutrality in their measurements so desired by positivist science (Gilbert, 2007). The result of this detached, positivistic approach has been the development of simplified models of

¹ Being the specific work of the coach – their behaviours, activities and processes – undertaken in attempting to enhance performance (Lyle, 2002).

coaching (e.g., Franks, Sinclair, Thomson and Goodman, 1986; Fairs, 1987) that depict an orderly, mechanistic process. Thus, the coach has been portrayed as a kind of technician in an unproblematic, decontextualised world (Potrac, Brewer, Jones, Armour and Hoff, 2000; Jones, Armour and Potrac, 2002). However, such episodic and formulaic representations of the coaching process are far removed from the authentic complexity and dynamic nature of coaches' actual practice (Saury and Durand, 1998; Nash and Collins, 2006). Consequently, scholars have raised concerns about the evident gaps between coaching research and coaching practice (e.g., Cushion, 2007a; Williams and Kendall, 2007; Jones, 2011). As Jones, Armour and Potrac (2003) argued, without understanding how coaches are influenced and affected by the worlds around them, we cannot effectively support them through innovations in coach education or evaluate the effects of coach education programmes at the level of coaching practice.

Despite a now considerable research base and an increasing rate of publication in the field over recent years (Gilbert and Trudel, 2004a; Rangeon, Gilbert and Bruner, 2012), we (practitioners and researchers) still lack a clear understanding of the coaching process (Cushion, Armour and Jones, 2003). It remains the case that too few studies have, "treated the coaching process as a problematic aspect of the research" (Lyle, 1999c p.13). As a result, existing work has advanced our understanding of measurable coaching practice far beyond our understanding of its personal, social or contextual contingency, its inherent complexity and its simultaneous breadth and depth (Kahan, 1999; Gilbert, 2002). By failing to relate coaching practice to the myriad constraints and opportunities of social interaction (Jones *et al.*, 2002) it is perhaps little wonder that coaching research has been accused of lacking realism in the eyes of practitioners (Cushion, 2007a; Martindale and Nash, 2012), or that coaches seem to make little reference to academic sources of information (Jones *et al.*, 2004; Gilbert, 2007; Reade, Rodgers and Hall, 2008a). These problems have arisen because the complex reality of the coaching process has been largely overlooked by coaching scholars, leaving us without authentic representations that enable us to understand and positively influence coaching practice (Jones *et al.*, 2002; Jones and Wallace, 2005). In the context of widespread moves to professionalise sport coaching, and against the

frameworks by which other professional organisations have been examined, it is essential that coaches are supported by a body of knowledge characterised by constructive links between theory and practice (Taylor and Garreatt, 2010a). In other words, research needs to be carried out at the level of practice in authentic ways if theory is to be developed that appeals to practitioners and thus promotes evidence-based practice.

In order to address the issues identified, calls have been made for research that better locates the coach within their social world (Jones *et al.*, 2002); research that is sensitive to both the particular and the general – to the coach's practice, but also to the broader circumstances of that practice. Jones (1997) and others (Côté, Salmela, Trudel, Baria and Russell, 1995c; Saury and Durand, 1998; d'Arripe-Longueville, Saury, Fournier and Durand, 2001; Jones *et al.*, 2002; Potrac, Jones and Armour, 2002; Cushion, 2007a) have suggested that it is the interrelationships between personal, social and contextual components of the coaching process that should be the central focus of any examination of coaching practice. To achieve this, and in order to develop existing work which simply describes *what* coaches do, new approaches to coaching research have been advocated that account for the *why* and *how* of coaches' actions (Abraham and Collins, 1998; Potrac and Jones, 1999; Cushion, 2007a). Thus, it is argued that the spotlight should be turned upon the aspects of the coaching process that are often-underplayed in the extant literature (Potrac, Jones and Cushion, 2007). For example, to foreground the coach's personal contribution to the coaching process, research must be sensitive to their biographies or life stories (Strean, 1998; Jones, Armour and Potrac, 2003), philosophies, education and learning (Nash, Sproule and Horton, 2008; Nash and Sproule, 2011; Callary, Werthner and Trudel, 2012). Moreover, to understand the situational nuances of the coaching process and their impact upon coaching practice, vivid descriptions of the coaching context are required (Mallett, 2007; Abraham and Collins, 2011).

In response to these calls, the present research is undertaken in the belief that, at its core, coaching is a social and practical process (Cushion, 2007a), constituted by the interactions of a coach and other social actors, within a specific coaching context (Côté *et al.*, 1995c). As such, coaching involves the coming together of human

idiosyncrasies (e.g., personalities, beliefs, goals and expectations; Jones and Wallace, 2005; Nash *et al.*, 2008), which occur against a complex backdrop of ideology, ethics, history and culture (Jones, 2000). Thus, nuanced personal, social and cultural antecedents will guide coaches' beliefs, roles, tasks, cognitions and behaviours, making their work multivariate, eclectic, interrelated and contested (Cross and Lyle, 1999; Jones *et al.*, 2002; Nash *et al.*, 2008). These beliefs reflect particular ontological, epistemological and methodological alignments. That is to say, a series of assumptions about the nature of reality, how we come to know the world and how best to gain knowledge about the world (Sparkes and Smith, 2014). Specifically, the present research is aligned with the constructivist-interpretive perspective, which assumes there are multiple realities (relativist ontology), recognises the mutual construction of meaning (subjectivist epistemology) and, therefore, aims for an interpretive, naturalistic understanding of people's lives (Denzin and Lincoln, 2013). In other words, this study is ideographically oriented toward understanding the meaning of the coaching process as a contingent, unique, subjective and socially constructed phenomena (Mallett and Tinning, 2014).

Ethnography is strongly associated with the constructivist-interpretive perspective (Denzin and Lincoln, 2013) and has been highlighted as a promising method for exploring the idiographic complexities of the coaching process (Mallett, 2007). Yet, few ethnographies of the coaching process have been published to date (e.g., Cushion and Jones, 2006; Cushion and Jones, 2014), leaving significant scope to examine the coach's unique experiences of and perspectives on the topic. In concert with the social, situated and practical characteristics of coaching, ethnography places, "emphasis on the generation of shared meanings and [recognises] the importance of local context and cultures in human behaviour and beliefs" (LeCompte and Schensul, 1999b p.58). By participating in the daily life of the coach for an extended period of time, the ethnographer, as the principle research instrument (Hammersley and Atkinson, 2007), can offer richly detailed insights into real-world sporting practice (Silk, 2005). Moreover, where the coaching process is notable for its holism and complexity, and thus the utility of isolated methods has been questioned, the ethnographic framework can encompass many methods of data collection (Gratton and Jones, 2010; Schensul and LeCompte, 2013b). For instance,

the combination of participant observation, stimulated recall interviews and the examination of documentary evidence has previously been linked to ethnography (Dempsey, 2010; Gratton and Jones, 2010). Indeed, the ethnographic framework is well suited to the development of a more in-depth, context-specific portrait of the coaching process and to understanding the coach's social practice therein.

Despite over a decade of research being published since the turn of the Millenium, the collective evidence still points to the veracity of Cushion's (2001) conclusion that, "not only is a more detailed knowledge of the coaching process required but also that coaching and the coaching process need to be analysed in the context of specific environments" (p.6). One environment that has attracted almost no attention to date is that of international rugby union (Gilbert, 2002). Instead, research has tended to be conducted in popular North American sports such as basketball and American football (Gilbert and Trudel, 2004a), and increasingly in soccer over recent years (e.g., Cushion and Jones, 2006; Potrac and Jones, 2009a; Partington and Cushion, 2013). As with much of the wider discourse, this work has generally examined youth domains of coaching, with less research examining the highest levels of adult, international competition (Gilbert and Trudel, 2004a). So often, the truly top-levels of coaching are "off limits" to researchers, with coaches remaining secretive about their "intellectual property" in order to protect a perceived competitive advantage (Wright, Atkins and Jones, 2012). Moreover, for such a popular and visible sport in the United Kingdom (UK) and more globally, rugby union coaching is conspicuous by its absence even from the well-established behavioural literature (Kahan, 1999). Another distinguishing feature of coaching research is its general focus on male, rather than female coaches. Given the underrepresentation of women in coaching (Norman, 2010) and especially in head coaching roles within senior national teams (Norman, 2012), carrying out research with the female head coach of a national rugby union team – one of the few female coaches operating at this level in rugby union anywhere in the world – offers a genuinely unique perspective on the dynamics of the coaching process whilst simultaneously beginning to address these other gaps in the literature.

The purpose of this thesis is to present data within an ethnographic framework on the complexity and holism of the coaching process. More specifically,

it seeks to understand how this complexity and holism is managed and navigated through the “real-world” practice of one coach. Consequently, this research sets out to examine coaching as a personal, social and situated coaching process from the as yet unreported perspective of a female senior national rugby union team’s head coach.

1.1: RESEARCH QUESTION

The coaching process is constituted in the interactions of the coach, other social actors and the coaching context (Côté *et al.*, 1995c; Saury and Durand, 1998). These interrelated factors impact the manner in which the coach carries out their role, creating context-specific, holistic and complex coaching practice (Gilbert, 2007). Existing studies have generally belied the true scope and complexity of the coaching process by isolating and decontextualising fragmented episodes of coaching practice (Cushion, 2007a). We therefore lack authentic portraits of how coaches navigate the messy realities of their holistic work. Specifically, the coach’s subjective experience of and contributions to the complex interplay of the coaching process in international women's rugby union remain under researched (Potrac *et al.*, 2000). This neglect has contributed to a paucity of bottom-up knowledge related to *how* and *why* coaches undertake their situated practice in particular ways more generally (Cushion, 2007a). Such knowledge is key to informing effective coach education and in turn, to preparing coaches for the challenging dynamics of the coaching process, as well as to the development of the conceptual bedrock of the coaching field (Potrac *et al.*, 2000). Importantly, these gaps between current coaching theory and actual coaching practice reflect, in part, the distance traditionally maintained between researcher and practitioner, which will likely continue unless efforts are made to bridge them. This thesis therefore attempts to develop a more authentic understanding of the relationship between coaching practice and the holistic complexity of the situated coaching process by examining, in detail, the site of practice itself (Cushion and Partington, 2014). Specifically, it sets out to answer the question: how is the coaching process operationalised by the head coach of an international women’s rugby union team?

1.2: RESEARCH OBJECTIVES

- To identify the elements, factors and properties that contribute to the complexity and holism of the coaching process;
- To examine how the interactions of the coach, these elements, factors and properties shape coaching practice;
- To explore the utility of a mixed-methods approach within the framework of ethnography to address each of the former objectives at the level of coaching practice and in a naturalistic coaching context;
- To place the knowledge developed as a result of the above objectives into a broader conceptual understanding of the coaching process from the perspective of a top-level female, international rugby union team's head coach.

1.3: ORGANISATION OF THE THESIS

A *Review of Literature* follows this chapter, which critically examines research that informs current understanding of the coaching process. Consideration is given to what can be learned from models of coaching as well as research subscribing to more interpretivist views. The chapter is largely organised around the core constituents of the coaching process: the coach, their associates and the coaching context. Building upon the themes raised in this *Introduction*, the aim of the review is to identify strengths and limitations of existing knowledge and how these might be developed, which helps to locate this project's research question and objectives within the field of coaching research.

A *General Methodology* then elaborates on the ontological, epistemological and methodological underpinnings of the present research. It offers a rationale for the ethnographic framework, multiple research methods and approaches to analysis chosen. Moreover, the ways in which interview, participant observation, systematic observation and stimulated recall procedures were designed to operate together in pursuit of this project's objectives are explained.

Due to the complexity and volume of the data arising from the research design, the discussion of findings is presented in three chapters. *Chapter 4, Who, When and Where: The Coaching Context* aims to set the scene for the reader by introducing a grounded model of the coaching process. This heuristic device acts as a

framework around which vivid descriptions are used to illustrate the interactions of the head coach, her background, coaching role, philosophy and social relationships. In addition, various contextual features and situation-specific opportunities and challenges, which impinge upon her coaching practice, are identified. *Chapter 5, What, How and Why: The Coach's Practice* then reports the coach's activities and behaviours in detail, giving further examples of how coaching practice is shaped by the interrelationships identified within the grounded model. Specifically, following the format recommended by Cushion *et al.* (2012b), a mix of quantitative and qualitative coaching practice data are examined in relation to the coach's philosophy and intentions, her subsequent recall and reflections, and in relation to the coaching literature. The third of these chapters, *Chapter 6, The Coaching Process and the Research Process: A Collaborative, Reflexive Relationship*, then explores the situated interconnections and mutual influence developed between the researcher and the coach during the research process. The discussion in this chapter is both collaborative and reflexive and considers the research-practice relationship from the perspectives of scholar and practitioner. Rather than to replicate the existing fragmentation of the coaching process in the literature, this chapter structure is intended to present the findings in a way that highlights, "the 'particular' of coaching within the 'general', and the 'general' of coaching within the 'particular'" (Cushion, 2007 p.397). Indeed, each chapter aims to progressively build upon the last, in order to develop a comprehensive and richly detailed picture of the coaching process.

Finally, the *Summary and Conclusion* draws together the whole thesis to consider its most salient findings, its contributions to knowledge, its implications for coaching theory and practice, and to propose future research directions.

Chapter 2

REVIEW OF LITERATURE

2.0: INTRODUCTION

Research into sports coaching has been carried out since the early twentieth century, with psychologist Coleman Griffith credited as one of its earliest pioneers (Green, 2003). The discipline grew out of an interest in the psychology of leadership, where trait theorists aimed to identify the universal characteristics of leaders' personalities (Weinberg and Gould, 2007). Subsequently, the academic field of sports coaching has evolved to examine coach behaviour (e.g., Chelladurai and Saleh, 1978; Smoll and Smith, 1989; Cushion and Jones, 2001) and coaches' knowledge (e.g., Côté *et al.*, 1995c; Jones *et al.*, 2003), among a host of other topics (Rangeon *et al.*, 2012). During the 1980s, coaching was first conceptualised as a process within the academic discourse (Lyle, 1999c), and the term coaching process has since been used throughout the literature to refer to the holistic and complex enterprise that encapsulates a coach's work.

Reviews of the coaching literature show that over 1000 journal articles have been published to date, which offer an array of different perspectives and insights into the coaching process (Gilbert and Trudel, 2004a; Côté and Gilbert, 2009; Rangeon *et al.*, 2012). Whilst these reviews suggest that the field of coaching science is now well established, a confounding factor in undertaking a review of the coaching process literature is that coaching research has largely failed to treat the coaching process as a problematic aspect of formal inquiry (Lyle, 1999c). In other words, research in sports coaching has rarely taken a "big picture approach" (Abraham, Collins and Martindale, 2006 p.549), and has instead examined parts or sub-processes of the holistic coaching process (Lyle, 2007). Consequently, the literature is fragmented and disorganised (Cushion *et al.*, 2006), and it exists without reference to a theoretical framework that could help to make sense of the multitude of information available (Côté *et al.*, 1995c). Indeed, almost all of the research on coaching or carried out with coaches tells us something about the coaching process, but there is no universally endorsed model of coaching around which this knowledge has, as yet, been organised (Lyle, 2002b).

In order to meet the challenges created by the diverse and largely disconnected body of knowledge in coaching, this review comprises two sections. First, some of the most frequently cited models of the coaching process are briefly examined, from which three consistently highlighted components of the coaching process are identified: coach, associates and context. Relevant research is then examined in relation to these key components in order to identify the strengths and limits of existing knowledge related to the purpose of this study.

2.1: CAPTURING THE COACHING PROCESS

Attempts to capture the coaching process in conceptual models or schemata stem from the field's roots in the positivist traditions of behavioural psychology (Cushion *et al.*, 2006). The positivist paradigm is nomothetic in that it seeks to generalise, predict and control phenomena, and to derive causality between, for example, effective coaching practice and athlete outcomes (e.g., learning or performance; Mallett and Tinning, 2014). Moreover, a core function of the positivist paradigm is reductionism; it simplifies the complexity of the whole by isolating and analysing its individual parts (Cushion, 2007a). As such, the search for a universal model of the coaching process has also been a search for universally effective or “good” coaching practice (Cushion *et al.*, 2006).

Embodying the characteristics of positivism, coaching models are abstractions of common phenomena in the coaching process. They attempt to represent “what goes on” and “how it works” by plotting relationships between simplified descriptors of the aspects, features or functions of sports coaching (Lyle, 2002b). As Abraham *et al.* (2006) put it, “unless you know how the process works, how can you optimally develop it?” (p.550). In this sense, models are intended to be mechanisms to describe an abstract phenomenon and comprehend its scope; because, while the outcomes of coaching (e.g., coach behaviour, athlete performance) are visible, the process itself as a coherent whole is less visible and more abstract (Lyle, 2002b). For instance, the simple idea that coaches should progress through cyclical stages of planning, doing and then reviewing, which compares closely to Fairs's (1987) model of the coaching process, has been popularised in UK coach education (e.g., Miles, 2004). Beyond these examples, a number of conceptual models of

coaching exist, but various concerns have been raised about their ability to adequately represent what coaches do. Consequently, models “*of*” coaching (based upon empirical research; e.g., Côté *et al.*, 1995c, d’Arripe-Longueville *et al.*, 1998, Groom *et al.*, 2011) can be distinguished from models “*for*” coaching (idealistic representations; e.g., Franks *et al.*, 1986, Fairs, 1987, Sherman *et al.*, 1997, Lyle, 1999, 2002).

Models *for* coaching are based upon authors’ assumptions about the coaching process and thus reflect idealised conceptual visions for how coaching should work (Lyle, 2002b). A particular limitation of these models is their deficient grounding in empirical evidence from actual coaching practice, which has limited their contribution to the field to the introduction of potentially useful terminology (Chelladurai and Saleh, 1980). Further limitations and issues related to the development of models *for* coaching have been addressed in detail elsewhere (see Lyle, 1999c; Lyle, 2002b; Cushion *et al.*, 2006; Cushion, 2007a). For example, the ability of any model to adequately represent the coaching process can be challenged, particularly as Cushion *et al.* (2006) noted, drawing on Kahan (1999), that a nomothetic understanding is immanently insensitive to the inherent complexity of coaching that has been acknowledged in recent years. Indeed, the reduction of what is a highly diverse and ill-defined phenomenon, inclusive of numerous and contested relationships, into simple nodes and connectors has been raised as a significant concern (Jones and Wallace, 2005; Cushion, 2007a). This issue reflects a seemingly intractable dilemma for researchers trying to represent the coaching process; broad representations (e.g., Fairs, 1987) fail to communicate the functional complexity of the coaching process and lack detail, while more complex models (e.g., Lyle, 2002b) have been accused of over prescription and thus, a lack of utility in practice (Abraham *et al.*, 2006; Cushion, 2007a).

Despite their noted limitations, models *of* coaching can provide insights into *what* coaches actually do (Mallett, 2007). They can also act as analytical frameworks for continued measurement, testing, analysis and explanation of coaching practice (Lyle, 2002b; Voight, 2007). They are a tangible product of research around which interactions between researchers and practitioners can be based (Abraham *et al.*, 2006), and they highlight some of the regularities within the coaching process

(Brewer, 2007) – a key point in the context of this review’s subsequent structure. However, reflecting a broader issue in the coaching literature, most models of coaching have focused on coaching episodes, or parts rather than the whole of the coaching process. For example, d’Arripe-Longueville *et al.* (1998) identified only the interaction strategies of French national judo coaches and their athletes related to common goals, and Groom *et al.* (2011) isolated the provision of performance analysis by England youth soccer coaches. Only Côté *et al.* (1995c) and Abraham *et al.* (2006) claim to have produced models that reflect the whole coaching process, which are now discussed in further depth.

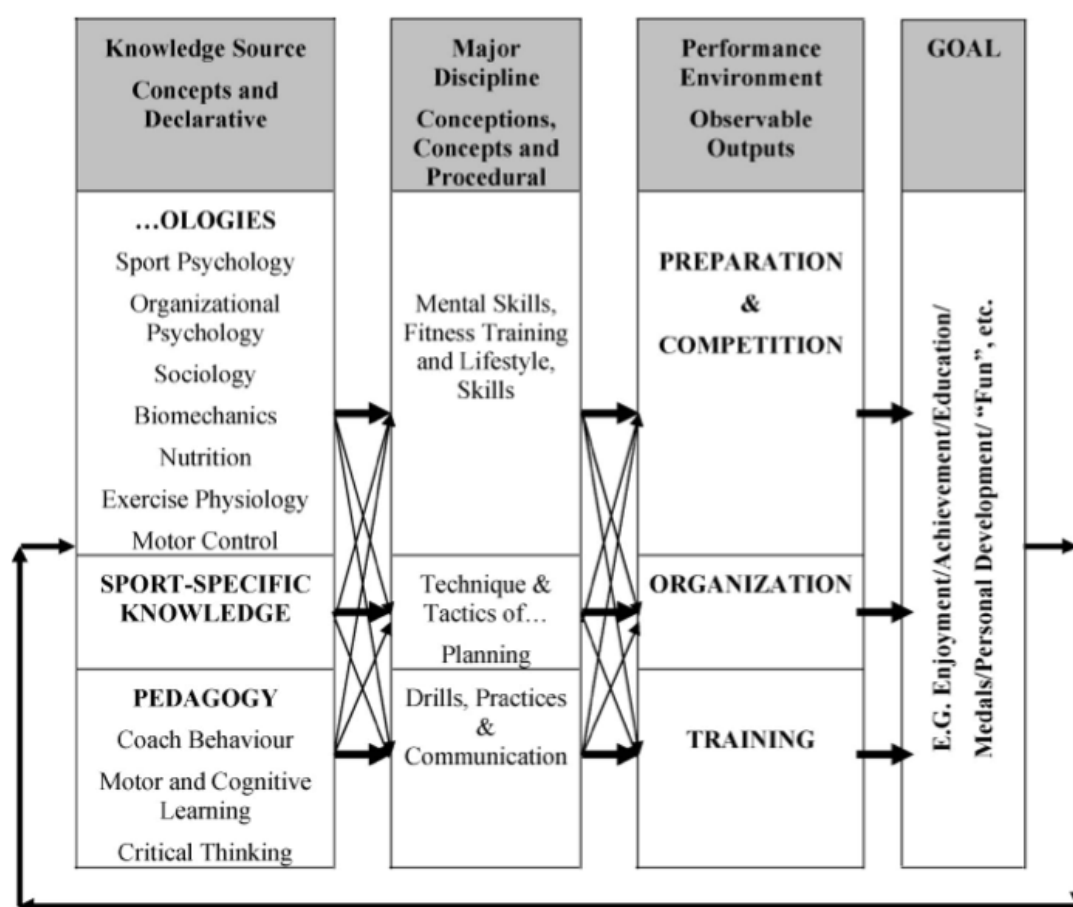


Figure 1.0 The Coaching Schematic (Abraham *et al.*, 2006).

The Coaching Schematic (CS; Abraham *et al.*, 2006), above, was developed by the authors through a review of the evidence-based literature related to coach development. This process incorporated work from sport science, coaching, education and cognitive psychology. Consequently, in the terms described before, it

can be positioned as both a model *of* and a model *for* coaching. The CS's strengths are that, unlike many others, the model's face validity was established in consultation with a group of expert coaches. The model also recognises multiple goals and outcomes for the coaching process, and it integrates a comprehensive overview of the types of knowledge required by practitioners. However, the authors themselves acknowledge that the usefulness of the CS is diminished by the fact that it is unlikely to successfully transfer to non-elite coaches (Abraham *et al.*, 2006). Furthermore, despite claiming to represent the whole coaching process, in reality the CS only represents cognitions, ignoring the impact of coaches' interactions with associates and the sociocultural context (Lyle and Vergeer, 2013). The CS cannot, therefore, be considered a holistic model of the coaching process, but a sub-process or part model, like those identified previously. Moreover, like many models, Abraham *et al.* (2006) initially acknowledge but then fail to adequately express the operational, dynamic and adaptive nature of the coaching process (Cushion, 2007a). Thus, the CS appears mechanistic, inferring, for example, that the coach will simply deploy the concepts of motor learning, through drills and games in training, in order to achieve some end goal. Such clean treatments do not correspond to the knowledge required to operate effectively in the messy realities of the coaching process. For instance, Nash *et al.* (2012 p.991) noted:

“...knowledge alone is not useful but rather... coaches must gain experience in applying this knowledge within their varied coaching environments.”

Indeed, given Abraham *et al.*'s (2006) attention to “on-the-job” learning, it is surprising that mechanisms of reflective practice (see 2.2.2: *Coach Learning*) are not more centrally and clearly located within the CS.

This leaves the Coaching Model by Côté *et al.* (1995c), one of the most frequently cited contributions to the coaching literature (Culver, Gilbert and Trudel, 2003) and, it has been argued (Rangeon *et al.*, 2012), the closest thing in the field to a guiding conceptual framework currently available. The Coaching Model is examined in more detail below.

2.1.1: THE COACHING MODEL

Mirroring a point made in the introduction to this review, Côté *et al.* (1995c) identified the lack of a theoretical framework around which sense could be made of

knowledge related to the coaching process. The authors were also critical of the focus in existing work on parts of the coaching process (e.g., coach behaviour; Chelladurai, 1984) and highlighted the need for an understanding of, “all the other variables involved in coaching” (Côté *et al.*, 1995c p.2). In order to develop their Coaching Model (CM; *Figure 2.0*), Côté *et al.* (1995c) conducted interviews with 17 expert, high-performance Canadian gymnastics coaches. From their grounded analysis of interview data, conceptual links were developed to represent the variables that affected coaches and the knowledge they utilised to deal with these variables in pursuit of athlete development. Although the CM was first introduced in Côté *et al.* (1995c), aspects of the research were described across a series of articles (see Côté, Salmela and Russell, 1995b; Côté, Salmela and Russell, 1995a; Côté and Salmela, 1996).

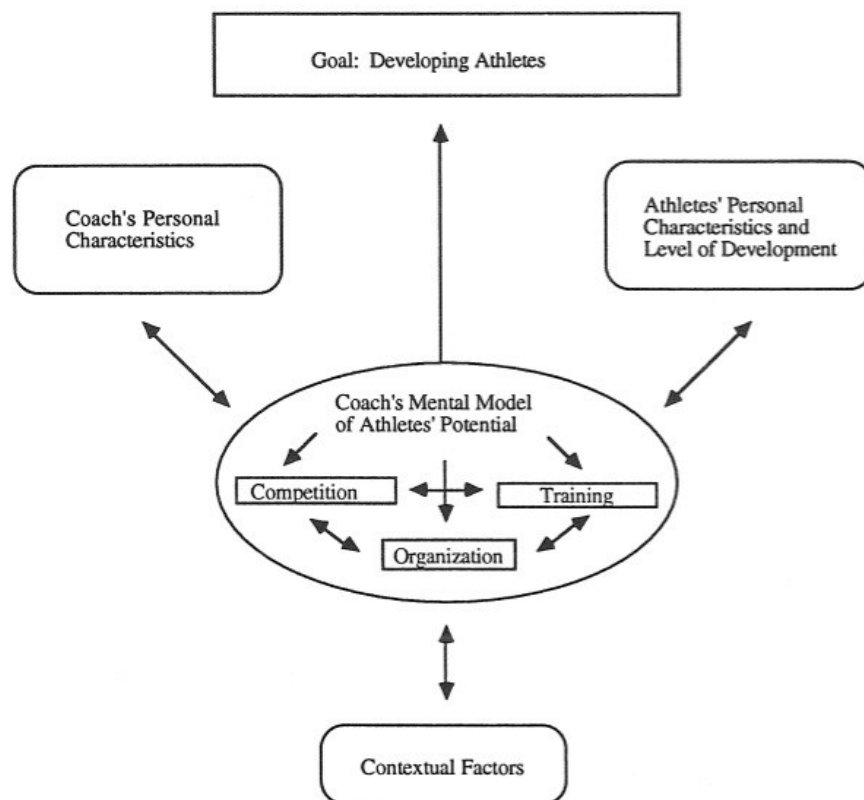


Figure 2.0 The Coaching Model (Côté et al., 1995c).

The impact of the CM can be seen by its precedent citation in a large number of subsequent qualitative and mixed-method studies (e.g., d'Arripe-Longueville *et al.*,

1998; Potrac *et al.*, 2002; Cushion and Jones, 2006). As such, the CM has contributed to the field's move towards a more interpretive understanding of the coaching process (Potrac, Jones and Nelson, 2014). Furthermore, the model has been usefully applied in other sporting contexts (e.g., Bloom and Salmela, 2000), where a good fit was found with the organisational tasks that Côté *et al.* (1995c) initially identified (Cushion *et al.*, 2006). The CM's major contributions have been to provide a more holistic picture of the coaching process and to recognise the necessity of adaptive coaching practice to deal with its complexity. More specifically, the model identified three constituent elements that contribute to this complexity: the coach, athlete and context, a conceptualisation that builds upon earlier work (e.g., Smoll and Smith, 1989; Chelladurai, 1990) and has subsequently been directly and indirectly endorsed by numerous others (e.g., Saury and Durand, 1998; d'Arripe-Longueville *et al.*, 2001; Jones *et al.*, 2002; Cushion *et al.*, 2006). In the context of this thesis, these foundational elements of the coaching process, which can be expressed more generally as personal, social and contextual factors (Côté and Gilbert, 2009; Strachan, Côté and Deakin, 2009), offer the most appropriate framework available to organise the diverse and disconnected research of the field.

In contrast to much prior research at the time, the CM acknowledged the complex and interpersonal nature of the coaching process (Jones and Wallace, 2005). Specifically, Côté *et al.* (1995c) highlighted the dynamic nature of coaches' social interactions with their athletes. In addition, interactions with parents and assistant coaches were identified, along with others including sport psychologists, nutritionists and therapists (Côté *et al.*, 1995c). Importantly, this broadens an almost exclusive focus in the extant coaching literature on the coach-athlete relationship. Indeed, the empirical confirmation of various social relations' central contribution to the coaching process is important in understanding the origins of its complexity. However, the operational nature of these interactions, their frequency and impact on the coaching process, are not sufficiently explained. Consequently, it is unclear how exactly relations between coaches and their associates are dynamic, and in relation to the authors' own objectives, how the participants were affected by and dealt with this complexity in practice.

Another valuable contribution of the CM was to emphasise that contextual factors impinge upon coaching practice. In their discussion, Côté *et al.* (1995c) developed the notion that contextual factors will affect coaches in varied ways, and that different athletes will be affected differently by the coaching context. Importantly, this further points to the origins of the complexity that characterises the coaching process. Yet, Côté and colleagues (1995a; 1995b; 1995c; 1996) failed to expand upon the types of unstable factors that they had identified or the specific ways in which their research participants had adapted to these constraints. Combined with the limited detail given of social interactions, the effect is to undermine Côté *et al.*'s (1995c) own assertion that the coaching process is interactive, uncertain and problematic. Instead the CM represents the coaching process as if it were relatively systematic, such that it appears athletes only passively receive coaching practice (Jones, 2007).

The CM also included descriptions of different coaching settings, which created varied coach-athlete interactions. Specifically, Côté *et al.* (1995a) identified the coach's role in controlling distractions the night before competition; whereas the coach was described as a relative spectator during the athlete's actual competitive performance. Additionally, varied organisational tasks were highlighted including a particular focus on planning training, monitoring athlete parameters and helping gymnasts with personal problems (Côté and Salmela, 1996). The CM has thus contributed to a more detailed understanding of the broad scope of the coaching process and of some of the varied and similar ways it is experienced and managed in one sport-specific domain. Furthermore, unlike Abraham *et al.* (2006), the CM highlighted the coach's philosophy as an important personal factor in shaping the coaching process. Here, matching Nash *et al.*'s (2008) later point, rather than a series of disconnected bodies of knowledge, Côté *et al.* (1995c) seemed to allude to (but again, with insufficient detail) a coach's philosophy as the integration of knowledge tried and tested in practice (see 2.2.3: *Coaching Philosophies*). Finally, Côté *et al.*'s (1995c) notion of coaches' mental models of athlete potential, which were determined by the interrelationships of the CM's peripheral components, suitably positions the coach as the central orchestrator of the coaching process, but one who

must be sensitive to various factors that prevent unfettered practice (Jones and Wallace, 2006; see 2.4.4: *Relatively Dynamic Contextual Factors*).

Some of the limitations of the CM arose because Côté and colleagues (1995a; 1995b; 1995c; 1996) only asked coaches about the coaching process during interviews, without also directly observing the process in action. Simply, it is possible that coaches might forget to mention something that is relevant to the coaching process. For example, Côté *et al.* (ibid) found that coaches of female gymnasts, not of males, reported working with psychologists, nutritionists and athletic therapists. Côté *et al.* (1995a) offered tentative explanations for this, but they also acknowledged that further investigation is needed. Although it is possible that high-performance coaches of male gymnasts had no use for performance support services, this seems unlikely (Kerr, 2012). Instead, it may be that the coaches of male athletes did work with the identified associates, but did not deem these relations sufficiently important to mention during interview. Observations of the coaches' practice in-situ would have offered one way to address this limitation (Cushion and Partington, 2014). Moreover, the analysis of actual coaching practice would have helped to triangulate the claims made by the coaches about their work. Examining coaching using multiple methods appears necessary as a number of recent studies (e.g., Harvey, Cushion, Cope and Muir, 2013; Partington and Cushion, 2013; Partington, Cushion and Harvey, 2014) have added to concerns that coaches have low self-awareness (De Marco, Mancini and West, 1997). Indeed, respondents' retrospective accounts are open to sanitisation (Lyle, 2003), social-desirability bias and other limitations (Gratton and Jones, 2010). In other words, if accurate conceptualisations of the coaching process are to be developed, it is important to check that coaches do what they think and say about their coaching practice *in* the realities of practice.

The CM was an attempt, in Côté *et al.*'s (1995c) own words, to encompass all the variables involved in the coaching process. However, Côté *et al.* (1995a) also identified likely differences between the contexts of gymnastics and other sports. Furthermore, the authors acknowledged that properties considered crucial in sport coaching including developing athlete self-confidence were inexplicably omitted from the supposedly comprehensive model. As such, the holism and utility of the

CM are questionable, which furthers claims that the pursuit of a universal model of coaching is premature or even illegitimate given what we know (and do not know) of coaching's complexity (Cushion *et al.*, 2006; Jones and Wallace, 2006; Cushion, 2007a). Indeed, given the issues associated with the search for a “top-down” coaching model, more “bottom-up” work, using interpretive methods to examine the complex realities of coaches' work is preferred (Côté *et al.*, 1995c; Potrac *et al.*, 2000; Potrac *et al.*, 2002). Although this need not exclude the useful modelling of core processes (Lyle, 2007), such models should be considered only part of the development of more in-depth, context-specific portraits of the coaching process in action (Gilbert, 2007; Mallett, 2007).

Despite the identified limitations of recognising the coaching process as complex and holistic but representing it in a relatively systematic way, it is important to reemphasise that the CM has been one of the most influential empirical studies in the evolution of the coaching field (Rangeon *et al.*, 2012). As such, its key components, the coach (personal factors), associates (social factors) – renamed to reflect the many relationships Côté and colleagues' research actually included – and context (contextual factors), provide useful subheadings under which a broader but fragmented body of research related to the coaching process is organised within the remainder of this literature review.

2.2: THE COACH (PERSONAL FACTORS)

2.2.1: COACHING KNOWLEDGE

The knowledge brought to bear by coaches during the coaching process has been conceptualised in a variety of ways. In one approach, three categories of knowledge required by coaches have been identified: sport specific knowledge, “ologies” and pedagogical knowledge (Abraham *et al.*, 2006; Nash and Collins, 2006). Given the origins of these conceptualisations, at least in part, in the education literature, the inclusion of sport-specific understanding (skills, tactics, structures etc.) is central to being able to differentiate coaching knowledge from that, for example, of teachers. It is also important that coaches understand principles of sport science in order to effectively prepare athletes for competition. For instance, knowledge of physiology is required if a rugby coach is to understand player recovery during the competition

phase of the season (Kelly and Coutts, 2007). Similarly, pedagogical knowledge is necessary if a coach's practice is to be underpinned by an understanding of how players learn (Light, 2008). Valuably, practitioners have supported these categories as being important bases of knowledge for coaching (Abraham *et al.*, 2006); yet, the realities of coaching practice necessitate the, "intricate integrations of various sources of knowledge" (Nelson, Cushion and Potrac, 2006 p.249), not the deployment of easily divisible bodies of theory.

The face validity afforded by experts to Abraham *et al.*'s (2006) description of these categories of knowledge could be beneficial to organisations invested in supporting coach development, such as National Governing Bodies (NGBs). Indeed, top-level coaches have highlighted the importance of understanding sport science sufficiently well to be able to keep "up to date" by reading relevant journals (Williams and Kendall, 2007), and it seems many coach certification courses already include sections on physiology, psychology and biomechanics (Nelson *et al.*, 2006). However, recent evidence (Cockburn, Fortune, Briggs and Rumbold, 2014) shows that, irrespective of their level of coach education, coaches have limited knowledge of nutrition, a key factor in optimising sport performance (Maughan, 1999). Similarly, concerns have been raised about the accuracy of expert sprint coaches' biomechanical knowledge compared to established theoretical principles (Thompson, Bezodis and Jones, 2009). So, regardless of its value to practitioners, there are clear gaps between theory and practice. Moreover, the limitations of conceptual knowledge alone have been raised; simply understanding the theory is not enough, coaches also need to understand *how* to apply this knowledge in practice environments (Nash and Collins, 2006; Nash *et al.*, 2012). Thus, where Abraham *et al.*'s (2006) CS was previously positioned as being somewhere between a model *for* and a model *of* coaching, the findings of Cockburn *et al.* (2014) among others demonstrate that the CS does not authentically represent the knowledge that coaches actually utilise in practice.

Authors (e.g., Saury and Durand, 1998; Nash and Collins, 2006; Partington and Cushion, 2013; Mallett and Tinning, 2014) distinguishing between knowledge of concepts and knowledge of their application in coaching have drawn upon a number of similar ideas to explicate their perspectives. For example, Saury and Durand

(1998) utilised Anderson's (1982) description of declarative and procedural forms of knowledge. Declarative knowledge is knowing *what* to do, where procedural knowledge is knowing *how* to do it. Using these terms, Ayres and Lovell (1999) distinguished between being able to verbalise (the *what*) and being able to demonstrate (the *how*) of sport skills. Some believe that expert coaches should have developed strengths in both these areas (e.g., Abraham and Collins, 1998); however, others question if it is essential that the coach knows what it feels like to complete a skill (e.g., Mallett and Tinning, 2014). Elsewhere, Mallett and Tinning (2014) used Arnold's (1988) notions of propositional and practical knowledge to communicate their argument. Propositional knowledge is comparable to declarative knowledge, but Arnold (1988) distinguished between weak and strong senses of practical knowledge. For example, practical knowledge in the weak sense is where a rugby coach can demonstrate a spiral kick but cannot verbalise how to perform the skill. Mallett and Tinning (2014) clarify that being able to articulate and demonstrate how to perform skills (strong sense) is likely to be beneficial, but that there are clearly numerous coaches who operate successfully without being able to perform the skills themselves.

Other distinctions between conceptual and practical knowledge have been made in the coaching literature. In one approach, Partington and Cushion (2013) adopted Argyris and Schön's (1974) view of espoused theory and theory-in-use to contrast youth soccer coaches' pedagogical intentions and actual practice. Specifically, where coaches' espoused an athlete-centred approach (see Kidman and Lombardo, 2010), they could not explain their reasoning (the *why*) or give details about the theory, and they did not demonstrate behaviours indicative of the theory in practice (Partington and Cushion, 2013). These epistemological gaps, as Light (2008) would describe them, related both to a lack of declarative understanding of the theory and to a procedural knowledge built upon traditional practice through the emulation of other coaches (Morgan and Sproule, 2013). Partington and Cushion's (2013) work demonstrated the value of examining the relationship between coaches' intentions and practice, which moved beyond the more often isolated methods of other coaching research.

In a final example of how coaching knowledge has been conceptualised, in order to account for coaches' adaptability in the face of various constraints, Saury

and Durand (1998) included distinctions between easily verbalised, explicit knowledge and more implicit forms of understanding. Like other conceptualisations, explicit knowledge encompasses sport science, sport-specific understanding and knowledge of pedagogical theory. Implicit knowledge, on the other hand, includes the automatic processes ingrained through experience as well as the professional know-how coaches often demonstrate without being able to explain it (Saury and Durand, 1998). Alternately, Nash and Collins (2006) use the term tacit knowledge in place of implicit knowledge, to describe the more intuitive and less explicable actions of coaches, refined in the everyday reality of the coaching process. This positions expertise in coaching as the ability to call upon a strong bedrock of declarative knowledge, but also being able to utilise the solutions developed during an extensive range of past experiences to deal with the ill-defined and emergent nature of the coaching context. Indeed, it appears that years of experience and reflective learning are an essential part of becoming an expert coach (Nash and Collins, 2006).

2.2.2: COACH LEARNING

Coaches develop their knowledge by a variety of means, both in and out of educational settings (Cushion *et al.*, 2003). The contexts of coaches' knowledge development have frequently been described in terms of Coombs and Ahmed's (1974) formal, nonformal and informal categories (e.g., Nelson *et al.*, 2006; Mallett, Trudel, Lyle and Rynne, 2009; Nash and Sproule, 2009). Large-scale coach education courses are the most frequently highlighted formal learning situation (Nelson *et al.*, 2006), although undergraduate and postgraduate university coaching degree programmes (e.g., Nash, 2003; Jones and Turner, 2006) also reflect the characteristics of being highly institutionalised, chronologically graded and hierarchically structured (Coombs and Ahmed, 1974). Nonformal coach learning situations include coaching clinics, workshops and conferences (Nelson *et al.*, 2006), which might otherwise be considered professional development activities (Cushion *et al.*, 2003). Informal coach learning encompasses a plethora of activities, including personal experience of coaching as an athlete, personal experience of coaching as a coach, and interactions with other coaches (Cushion, Nelson, Armour, Lyle, Jones,

Sandford and O'Callaghan, 2010). In addition, more intentional, self-directed forms of informal learning can occur when coaches browse the Internet, read books or watch footage of their own and others' coaching and sport performance (Cushion *et al.*, 2010). Uniquely, learning that occurs as a result of mentoring can be categorised as more or less formal, depending upon the origins of the coach-mentor relationship, initiated either through the coaching system or by more individualised means (Jones, Harris and Miles, 2009). For the purposes of this review, mentoring is discussed in 2.2.2.2: *Nonformal Coach Learning*.

2.2.2.1: FORMAL COACH LEARNING

Large-scale coach education courses, typically organised by governing bodies, are frequently engaged in by coaches (Nelson *et al.*, 2006). Beneficially, such courses enable coaches to obtain formally recognised and quality assured qualifications (Mallett *et al.*, 2009). Thus, formal qualifications are often included in the requirements of coaching job descriptions and to differentiate between the participants in coaching research (e.g., Nash *et al.*, 2008). Personal benefits of attending formal coaching courses include opportunities for networking with other coaches (Nash and Sproule, 2012) and improved coaching efficacy (Malete and Feltz, 2000), among other things (see Cushion *et al.*, 2010; Trudel, Gilbert and Werthner, 2010). However, research has also shown that such courses are not always delivered according to their syllabus (Gilbert and Trudel, 1999; Hammond and Perry, 2006), which raises questions about quality assurance. Furthermore, criticism has been aimed at courses' lack of depth and decontextualised delivery, at their failure to develop reflective and critical thinking skills, and at their inclusion of passive and simulated, rather than active and realistic learning modes (Nash and Sproule, 2009; Cushion *et al.*, 2010). Finally, calls have been made for a much greater focus on the essential but underplayed *how* of coaching in coach education, which can be described as pedagogical content knowledge (Jones, 2007). Specifically, there is a need to better support coaches' synthesis of subject matter knowledge, pedagogical knowledge and knowledge of the context through coach education (Jones, 2007). In sum, it would appear that coaching courses generally do not do enough to prepare practitioners for the dynamic circumstances they will encounter in practice (Nash and Sproule, 2012).

The University and Colleges Admissions Service (UCAS) now identify over 50 institutions offering undergraduate single honours degrees focused on sports coaching in the UK, which reflects a notable expansion over the last decade (cf. Lyle, 2002b; Taylor and Garratt, 2010a). Determining the role that universities and colleges should play in coach education is currently a topic of debate (Trudel and Gilbert, 2013). This situation has been catalysed by a move towards professional regulation in sports coaching (Gilbert, 2009), bringing comparisons to the preparation of practitioners in other professions (Duffy, Hartley, Bales, Crespo, Dick, Vardhan, Nordmann and Curado, 2011). Yet, research shows that many coaches already hold undergraduate and postgraduate qualifications (e.g., Nelson and Cushion, 2006; Erickson, Côté and Fraser-Thomas, 2007; Reade, Rodgers and Spriggs, 2008b; Nash and Sproule, 2009), though how closely related to coaching they are (e.g., sport science, physical education etc.) is often unclear, and the coaches in these studies' samples cannot be assumed to mirror the academic status of coaches more generally. Despite this, findings suggest that higher education qualifications do positively impact coaches' declarative knowledge, critical thinking skills (Turner and Nelson, 2009), inclination to independent learning (Nash and Sproule, 2009) and perceptions of competence (Santos, Mesquita, Graça and Rosado, 2010). Importantly, many of these skills relate directly to the most recent and comprehensively developed criteria for identifying and operationalising expertise in sport coaching (see Nash *et al.*, 2012). By addressing some of the limitations of other formal coach education provision, universities may be well positioned to play a more central role in the education of coaches as the field moves forwards.

What is clear from the literature related to formal coach learning, is that coach education courses, even if not directly implicated in the development of expertise (Nash *et al.*, 2012), act as essential signposts of progress in the more general development of coaches' careers (Gilbert, Côté and Mallett, 2006; Erickson *et al.*, 2007; Nash and Sproule, 2009; Werthner and Trudel, 2009). However, as a result of the issues highlighted, practitioners sometimes view coaching courses as a "hoop to be jumped through" for the sake of their development or in order to work in certain contexts (Werthner and Trudel, 2009; Piggott, 2011). Consequently, some coaches have been found to only give the impression of meeting course outcomes, to

ease their way through a necessary but lamented process, before reverting back to their pre-attendance preferences and habits (Chesterfield, Potrac and Jones, 2010). Though further studies are required in sports beyond soccer (e.g., rugby union) to establish if Chesterfield and colleagues' (2010) findings can be generalised beyond their very small sample group in one sport. Indeed, it remains the case that little is known about coaches' experiences of formal education programmes. Additionally, the importance attached to holding a coaching or even a sport-related degree varies between national coaching systems (Duffy *et al.*, 2011; Callary, Culver and Werthner, 2013). In fact, it appears that reputation, success (win-loss record) and experience still counts for more in coaching, especially in the Western world (Reade, 2009; Mallett and Tinning, 2014). Indeed, research has consistently shown that formal means of coach learning are less valued by coaches than less formal learning opportunities (Mallett *et al.*, 2009).

2.2.2.2: NONFORMAL COACH LEARNING

Nonformal learning activities including clinics, workshops and conferences can broadly be divided into general and subgroup-specific types of continued professional development (CPD). Current examples on offer in the UK include first aid training (general), as well as sport- and domain-distinct activities, such as the director of rugby course for leading rugby union coaches. Attendance at coaching clinics can act as a signpost of coach development. Specifically, sports coach UK, the UK's national coaching body, identifies a variety of "recommended training", considered part of the minimum requirements for coaches to operate in a number of major sports (sports coach UK, 2013). Similarly, CPD is a key component of coaching systems around the world (Misener and Danylchuk, 2009; Callary *et al.*, 2013). Coaches do engage in nonformal learning (Wright, Trudel and Culver, 2007; Cushion *et al.*, 2010); however, the evidence suggests a relatively low uptake in the UK (sports coach UK, 2011). Little research has examined CPD in coaching, but Wright *et al.* (2007) found that coaches valued the opportunity to hear from experts talking about specific topics, and clinics and seminars have also been ranked highly by coaches as sources of new ideas (Reade *et al.*, 2008b). Moreover, CPD provides a

relatively low-cost (money, time etc.) site for the development of declarative knowledge in what is a largely voluntary workforce.

Mentoring can be formal, nonformal and informal, but a more facilitative middle ground appears to be the preferred approach of key organisations in some coaching systems (Nash, 2003) - hence its inclusion in this section of the review of literature. This seems logical as over-formality in mentoring relationships may hinder the development of rapport and trust, and thus limit learning and development (Klasen and Clutterbuck, 2002). In contrast to the criticism of formal coach education's typically decontextualised and passive approaches to learning, mentoring can be active, collaborative and highly contextualised to the coach's unique environment (Cushion, 2006). Indeed, coaches have identified benefits of working with skilled and experienced practitioners (e.g., Bloom, Durand-Bush, Schinke and Salmela, 1998), such as being monitored, and receiving feedback and guidance related to their context-specific (real world) practice (Wright *et al.*, 2007). Moreover, mentors are well positioned to support and catalyse reflective practice in coaches (Gilbert and Trudel, 2005; Cushion, 2006). Even so, the majority of mentoring currently occurs on an informal basis (Cassidy, Jones and Potrac, 2009), despite the limited evidence available suggesting that coaches may actually prefer more structured approaches (Bloom *et al.*, 1998). Moreover, research shows that mentoring in the UK lacks a quality-assured qualification or qualifications and that, despite its promise, mentors can also be perceived as ineffective by coaches if their role is unclear (Nash, 2003). Consequently, the roles of informal mentors in the socialisation of coaches through their apprenticeships of observation are discussed further below.

2.2.2.3: INFORMAL COACH LEARNING

A large number of coaches appear to be operating outside of formal systems of coach development in the UK (sports coach UK, 2011; Nash, Sproule, Hall and English, 2013). Moreover, the evidence suggests that coach education courses and CPD account for very little of coaches' developmental time (Gilbert *et al.*, 2006; Gilbert, Lichtenwaldt, Gilbert, Zelezny and Côté, 2009). Thus, formal and nonformal learning activities can be considered relatively low impact activities at present

(Nelson *et al.*, 2006). Comparatively, informal means of learning, both incidental and intentional, have been shown to be the most common and powerful aspects of coach learning and development (Nelson *et al.*, 2006). Sources of informal learning include the Internet, journal articles, coaching manuals, books, magazines, videos and personal experience, as well as observations of and discussions with other coaches (Cushion *et al.*, 2010). These kinds of informal learning may be mediated (e.g., coach is guided by a mentor), unmediated (e.g., coach decides what to learn without support), or internal (e.g., coach reconsiders existing ideas; Werthner and Trudel, 2006). However, there is a lack of clarity about how often coaches access the various sources identified, their relative perceived importance and the impact they have on knowledge and practice (Cushion *et al.*, 2010).

Generally, the research has shown that while some sources including journal articles are ranked poorly by practitioners, others, specifically personal experience and interactions with fellow coaches, are highly rated (e.g., Williams and Kendall, 2007; Reade *et al.*, 2008a; Reade *et al.*, 2008b; Mesquita, Isidro and Rosado, 2010). Learning how to coach most often begins as an athlete, with these early experiences of coaching acting, just as in the transition from student to teacher, as an evaluative lens, through which future experience is viewed (Schempp and Graber, 1992). This is then further developed through personal experience as an assistant and head coach (Cushion *et al.*, 2003). Additionally, athletes, other coaches and mentors act as valuable sources of learning, from whom coaches develop their knowledge through interactions and observations (Schempp, Webster, McCullick, Busch and Mason, 2007; Cushion *et al.*, 2010). Cushion *et al.* (2003) characterised this learning as an apprenticeship of observation, with the practice of other coaches serving as, “guides to action” (Jones *et al.*, 2003 p.220). Beneficially, such networks and experiences have been found to help coaches understand their sport’s rules and nuanced procedures, as well as enabling them to see things from different points of view and to empathise with their athletes (Saury and Durand, 1998; Cushion *et al.*, 2010). However, concerns have also been raised about the way coaches are initiated into the ways “things *should* be done” in coaching (Lyle, 1999c). Key among these concerns is the uncritical perpetuation of traditional coaching methods (Cushion *et*

al., 2003), arising from socialisation into a subculture whose practice is more often based on beliefs than research evidence.

Coaches also learn, to use Sfard's (1998) metaphor, through participation; they learn through experience developed while coaching. Indeed, coaches frequently encounter nuanced and dynamic dilemmas within their socio-contextual worlds, necessitating the development of actionable strategies to overcome them (Saury and Durand, 1998; Nelson *et al.*, 2006). Here, self-monitoring processes as well as reflection during and following practice are central to coach development (Erickson *et al.*, 2007). Gilbert and Trudel (2001) have best conceptualised this experiential learning process in the light of learning theory (e.g., Schön, 1983) in their model of coaches' reflective conversations (Cushion *et al.*, 2010). The model proposes that following an initial identification of coaching issues, repeated iterations of strategy generation, experimentation and evaluation are made in order to solve the identified dilemma. However, it is not the case that the coach must act alone in this; in fact, it may be a limitation to do so given the limits of their own knowledge or ability to recognise situations (issues) to reflect upon, which normally illicit intuitive responses (Nash and Collins, 2006). Instead, research acknowledges the vital role others play, including assistants, specialists and mentors, in setting and solving coaching issues (Gilbert and Trudel, 2001; Schempp *et al.*, 2007).

Paradoxically then, significant others can perform crucial roles in the unthinking reproduction of practice traditions and in helping to individualise learning (Jones *et al.*, 2009). They can help maintain traditions through time or support coaches to develop knowledge grounded in the complex realities of their own experiences (Cushion *et al.*, 2003). For example, depending upon the nature of their interactions, mentors might constrain a coach's perception of the possibilities of coaching practice or expand their horizons (Cushion, 2006; Wright *et al.*, 2007). Indeed, effective interactions can stimulate issue setting and encourage reflection, leading to active experimentation and refined repertoires for practice (Irwin, Hanton and Kerwin, 2004). Similarly, participation in communities of practice, another form of joint enterprise, engaging members of a club or team, can expose coaches to new ideas and varied perspectives, and lead to the development of negotiated strategies or shared ways of working (Culver and Trudel, 2008). Alternately, Carson (2008) and

Meeûs *et al.* (2010) demonstrated that reflective practice can be facilitated by researchers using video footage of coaching practice. Thus, the use of video as a catalyst to reflection, developing self-awareness, knowledge and coaching practice, is a promising area for further study (Harvey *et al.*, 2013; Harvey, Pope, Fletcher and Kerner, 2014). It is therefore important for research to examine the coach's subjective experiences of interacting with significant others in the coaching context in order to understand the development of their identity and knowledge (Jones *et al.*, 2003).

In summary, it seems that coaches learn by a unique and varied mix of formal, nonformal and informal means. Although each of these has a valuable contribution to make to coach learning (Wright *et al.*, 2007), it is clear that experience of coaching and interactions with other coaches currently shape practice more than any other factor (Cushion *et al.*, 2010). Partly as a consequence of pervasive traditions in coaching and grounded in refinement through trial and error (Irwin *et al.*, 2004), coaches tend not to operate according to research findings or theoretical principles. Instead, what Bruner (1999) called folk pedagogies are more evident in coaching, incorporating strong beliefs about the best way to coach (Armour, 2011; Light and Evans, 2013; Partington *et al.*, 2014). Thus, knowledge alone cannot be considered the sole foundation upon which coaching practice is built, it is also shaped by coaches' philosophies (Côté *et al.*, 1995c; Nash and Collins, 2006).

2.2.3: COACHING PHILOSOPHIES

A coaching philosophy is a set of beliefs, principles and values that guide coaching practice (Nash *et al.*, 2008; Jenkins, 2010). These ways of thinking and acting relate to philosophical questions concerning coaches' axiology (values), ethics (morality), ontology (meaning), epistemology (knowledge) and phenomenology (experience; Hardman and Jones, 2013; Cushion and Partington, 2014). Importantly, developing a clear understanding of their philosophy can provide the coach with direction in an unstructured world (Cassidy *et al.*, 2009), act as a framework to monitor and reflect upon their work, and thus, help to develop their knowledge and practice (Schempp, McCullick, Busch, Webster and Mason, 2006; Nash *et al.*, 2008).

Despite the potential value in a more classically philosophical interpretation, when asked about their “philosophies”, practitioners typically do not respond in the vein of thinkers like Socrates, Descartes, Nietzsche or Wittgenstein. Instead, they usually describe a preferred or espoused coaching style (e.g., Nash *et al.*, 2008) based upon some notion of what works best or gets results (Cushion, 2013). These “philosophies” have been conceptualised as coaches’ “practice theories” (Cassidy, 2010b), which Cushion and Partington (2014) suggest are mirrored both in coaches’ thinking about their practice and in the ideological rhetoric of coach education. Coaches often also offer as their “philosophies” various intended outcomes of their practice (e.g., fun; Robbins, Houston and Dummer, 2010), or the tactical strategies of their team (e.g., Cordes, Lamb and Lames, 2012). For example, Nash *et al.* (2008) highlighted diverse interpretations and use of terminology in the way coaches expressed their philosophies. One coach described their approach as “athlete centred” (see Kidman and Lombardo, 2010), while others talked of being holistic (see Cassidy, 2010a), playing a “beautiful game” and wanting to make training fun for athletes. Generally then, “coaches’ notions of their philosophies appear more ideological than philosophical” (Cassidy *et al.*, 2009 p.58), and practitioners seem more concerned with the practical business of coaching than reflexive introspection (Cushion and Partington, 2014).

At odds, however, with coaches’ apparently practical ideologies (practice theories), research shows that “coaching philosophies” are not always implemented *in practice* (McCallister, Blinde and Weiss, 2000). For example, recent mixed-methods investigations (e.g., Harvey *et al.*, 2013; Partington and Cushion, 2013) have highlighted distinctions between coaches’ espoused theories (what they say they will do) and theories-in-use (what they actually do; Argyris and Schön, 1974). In other words, to use a sporting cliché, coaches may talk a better (or, at least, different) game than they play (Cassidy *et al.*, 2009). Some have argued (e.g., Carless and Douglas, 2011; Cushion and Partington, 2014) that gaps between coaches’ “philosophies” and their specific coaching practices should be expected. Indeed, tensions seem almost inevitable if neat and supposedly encompassing articulations (rhetoric) on the one hand are to be compared with practice that occurs

within the complex and messy dynamics of the coaching context on the other (Cassidy *et al.*, 2009).

Jones and Wallace (2005), drawing on Raffel (1999) and Blum and McHugh (1984), proposed that managing the tensions between philosophy and context necessitates “principled” practice. Importantly, this notion of principles (strong beliefs in the “rightness” of one’s actions) might be what enables top-level coaches to maintain a sense of direction and personal standards in the complexity of the coaching process (Jones and Wallace, 2005). Indeed, Jones and Wallace’s (2005) idea of principled action appears to align with the philosophical or reflexive contemplation of fundamental questions (e.g., axiological, ontological etc.) raised by Hardman and Jones (2013). Nonetheless, given the evidence highlighted (e.g., Nash *et al.*, 2008), many coaches struggle or simply do not attempt to engage with their practice at this level. Compounding this challenge, deep-rooted beliefs take shape over a lifetime of complex experience, which highlights the importance in research of linking practice to coaches’ biographies and identifying critical learning incidents (Cushion and Partington, 2014). Moreover, coaching practices initially learned consciously become so ingrained over time that they end up being tacitly habitual (Nash and Collins, 2006). Thus, despite the difficulties of making the tacit explicit, in order to better understand the underpinnings of coaching practice there is a need for research to engage coaches in philosophical reflection (Cushion and Partington, 2014).

As gaps between recent theorising of coaching philosophy (e.g., Hardman and Jones, 2013; Cushion and Partington, 2014) and practitioners’ more “commonsense” approaches to practice begin to emerge, it is clear that there is a lack of research that examines coaches’ philosophies philosophically (Cushion and Partington, 2014). Despite this, the findings of several interview-based studies (e.g., Jones *et al.*, 2004; Smith and Cushion, 2006; Nash *et al.*, 2008; Bennie and O’Connor, 2010) suggest that the development of athlete and person, encompassing humanistic principles, may be a key concern for many coaches. Moreover, Lyle (1999b) identified a series of values, principally related to concerns for personal growth, respect for others and partnership, which underpinned coaches’ practice. However, Lyle’s (199b) work included few top-level coaches, which is important because the

inherent focus on winning in this context would appear to militate against person-driven or humanistic practice (Smith and Cushion, 2006). Indeed, the success orientation evident particularly in competitive, international sport (Light and Evans, 2010) has been raised as a critical philosophical dilemma in coaching (Jenkins, 2010). Therefore, without studies that drive towards the philosophical roots of top-level coaches' actions, our understanding of coaching practice and its underpinning meanings in this domain will remain incomplete.

A further limitation in the small body of research that directly examines coaches' philosophies (Jenkins, 2010), with the exception of McCallister *et al.* (2000), is that studies have only examined what coaches say they do during snapshot interviews, not what is actually demonstrated in the vagaries of practice. In addition, the evidence, though limited, suggests that philosophies are not static, but evolve over time, with experience (Jenkins, 2010; Kidman and Lombardo, 2010). For example, Potrac (2004) reported a critical incident that shaped Olympic athletics coach, Peter Stanley's philosophy, which related to effective feedback:

"It was a freezing cold night and we were working indoors. Anyway, he came down and did his jump and it was bad. It was a bad jump and he landed in the sand and looked up with a look of 'Oh God' and I said, 'You ran in well there, you just dropped your hips a bit to early.' He said, 'Pete, I don't come here to be bullshitted by you. It was crap.' He said, 'Don't bullshit me. It was crap and I'll go back and I'll do it again.' So, I thought, rather than look for positives with everybody, I'm going to base my feedback around what they want to know and what they, as individuals, want to get from each session." (p.79)

To address these limitations, researchers must connect coaches' intentions to their behaviours, activities and experiences by examining the coaching process before (biography, knowledge, planning), during (behaviours, activities) and after (reflections) practice (Cushion *et al.*, 2012b), in longitudinal studies. As Lyle (2007) argues, coaches' intentions need to be better understood alongside the factors that shape the implementation of those intentions. In this vein, the pursuit of case studies (Lyle, 2007) and mixed-methods research designs, including interviews and systematic observation (Potrac *et al.*, 2000), have been promoted as a promising way forward.

2.3: ASSOCIATES (SOCIAL FACTORS)

The most pervasive feature of the coaching process is the fundamental interaction between coach and athlete; indeed, it is these interactions in preparation for competition that give rise to and define the coaching process (Lyle, 2002b).

Accordingly, the way a coach interacts with athletes through their behaviours and activities have been popular areas of inquiry and debate within the literature. In contrast, very little research has examined the coach's numerous interactions with other people in the coaching process or how these relations and those with athletes reciprocally shape coaching practice.

2.3.1: COACH BEHAVIOUR (INTERACTIONS WITH ATHLETES)

One of the most prominent research approaches in the coaching literature as a whole has been to systematically observe coach behaviour (Kahan, 1999; Gilbert and Trudel, 2004a), particularly in training situations (Nash and Collins, 2006).

Systematic observation involves the researcher quantitatively recording coaches' overt actions, usually their verbal actions towards athletes, into an instrument comprised of predefined categories and criteria. Numerous systematic coach behaviour observation instruments now exist (e.g., Tharp and Gallimore, 1976; Smith, Smoll and Hunt, 1977; Markland and Martinek, 1988; Segrave and Ciancio, 1990; Brewer and Jones, 2002; Cushion, Harvey, Muir and Nelson, 2012c) and some generic examples, such as the Arizona State University Observation Instrument (ASUOI, Lacy and Darst, 1985), have been widely applied in various sporting contexts (Brewer and Jones, 2002). Others, such as Brewer and Jones' (2002) Rugby Union Coaches Observations Instrument (RUCOI) have been developed for specific sporting contexts and coaching domains. Usefully, studies adopting the systematic observation method have contributed to a growing database of coach behaviour, which has been foundational to developing in its own right the field of coaching science and to understanding *what* it is that coaches do (Cushion and Jones, 2001; Potrac *et al.*, 2007).

Systematic observation research has shown that coaches predominantly engage in behaviours related to instruction (Kahan, 1999), with feedback, praise and scold, questioning, observation and management of the practice environment also

being essential features of coaching practice (Dodge and Hastie, 1993). A virtue of quantifying behaviour in these terms is that coaching practice can then be critically examined in the light of pedagogical theory and hence, links made to athlete learning, development and performance (e.g., Potrac *et al.*, 2002; Mesquita, Sobrinho, Rosado, Pereira and Milistetd, 2008; Cushion *et al.*, 2012b). Indeed, by developing a fuller understanding of coach behaviour through such “bottom-up” work, we may well be able to develop evidence-based recommendations for practitioners in the future (Potrac *et al.*, 2007). However, in the same sense that “paint-by-number” plans or law-like philosophies are at odds with the social and practical complexities of coaching (Jones and Turner, 2006), so too absolutist recommendations for coach behaviour would appear to be of little use to practitioners (Abraham and Collins, 1998). For example, praise behaviours have been implicated in the creation of a positive coaching environment (Partington and Cushion, 2013), but negative outcomes have also been associated with excessive praise and positive feedback (Mageau and Vallerand, 2003). Thus, rather than pursuing universal rules, situation-specific understanding is needed (Abraham and Collins, 1998).

Despite very general consistencies being identified within the existing database of coach behaviour, the ability to draw worthwhile comparisons, even among sport- and/or domain-specific studies, is limited (Partington and Cushion, 2013). Indeed, Abraham and Collins (1998) compared several coaching practice studies, demonstrating that notions of effectiveness cannot be tied to a given rate or frequency of certain behaviours. Specifically, for example, they highlighted research findings in support of instructive, autocratic behaviours, as well as studies that advocate more democratic approaches. Instead, the specific context of a given behaviour (e.g., training or competition, Smith and Cushion, 2006) will likely determine its effectiveness (Abraham and Collins, 1998). In the light of this understanding, a prevailing limitation in the body of systematic observation literature is that much less work has examined coach behaviour in competition than in training situations, or in both training and competition (Smith and Cushion, 2006). Furthermore, the coach has been found to frequently interact with assistants during training (Segrave and Ciancio, 1990), yet these behaviours have rarely been accounted for in recent systematic observation studies of coaching practice. For

example, Partington and Cushion (2013) and Harvey *et al.* (2013) did not include an “interaction with assistant coach” category in their observation protocols.

Additionally, the majority of coach behaviour studies have been carried out without reference to the practice activities in which athletes are engaged (Ford, Yates and Williams, 2010). As a result of these issues, the current picture of *what* coaches do is only selectively detailed, generally decontextualised and remains largely incomplete.

In order to address one of these limitations, practice activity classifications (time-use analysis) have more recently been used in order to embed behavioural data within an understanding the coach’s and players’ immediate context (see Ford *et al.*, 2010). Moreover, digital technologies including audio-visual recording and computer-based analysis have better embraced the multi-level complexity of the microstructure of coaches’ behaviours and activities, which would otherwise be beyond the reach of simple hand notation (Cushion *et al.*, 2012c; Morgan, Muir and Abraham, 2014). The emergent research has shown that drill-like Training Form activities are used more often than game-like Playing Form activities (Ford *et al.*, 2010; Harvey *et al.*, 2013; Low, Williams, McRobert and Ford, 2013; Partington and Cushion, 2013; Partington *et al.*, 2014). Despite a limited number of publications based upon this approach to date, it provides a more comprehensive means to examine the relations between a coach’s intentions and practice (Cushion, Ford and Williams, 2012a). For example, it has been suggested that increasing the time spent in Playing Form activities, which aligns with the Game Sense philosophy (see 2.3.2: *Coaching Pedagogy*), will lead to preferable use of praise, feedback, questioning and silence behaviours (Partington and Cushion, 2013).

Efforts have also been made in the last decade to move beyond the simple quantification of *what* coaches do (Potrac *et al.*, 2014). This follows recommendations that systematic behavioural observations should be complimented by interpretive interviews (e.g., Potrac *et al.*, 2000). Proponents of such change value the rich insights qualitative methods can contribute, particularly in consideration of *how* and *why* people practice in the ways they do, and how they make sense of their contextual experiences (Strean, 1998; Potrac and Jones, 1999). Potrac *et al.* (2002) were among the first to act upon their own earlier calls in a mixed-methods case-study of a top-level English soccer coach. Like other studies that have followed (e.g.,

Smith and Cushion, 2006; Partington and Cushion, 2012; Harvey *et al.*, 2013; Partington and Cushion, 2013; Partington *et al.*, 2014), their work has added to understanding of the pressures and constraints coaches perceive in their unique contexts (see section 2.4: *Context*), and of the impact of social forces in the coaching process. For example, Potrac *et al.*'s (2002) participant was found to undertake his role, through his behaviours, with reference to the expectations of others, particularly players, so as to project a desirable image of himself as a practitioner. Indeed, Potrac *et al.* (2002) demonstrate how the sociological lens, and particularly the interrelated concepts of role, power and interaction (see also Jones *et al.*, 2002), using the work of Goffman (1959) on impression management and Callero (1994) on social role, can help to explain coaches' complex, situated practice.

Mixed-methods work is therefore imperative in the move toward, "theory that is true to the complex realities of sports coaching" (Smith and Cushion, 2006 p.356). Moreover, rejecting notions of their incompatibility (see Howe, 1988; Brewer, 2007), it has been argued that the knowledge base developed through qualitative work can inform the design of context-specific quantitative instruments for coach behaviour analysis (Côté and Sedgwick, 2003). However, other issues in the design of research concerned with coaching practice still need to be addressed. Specifically, the activities and behaviours that comprise coaching practice in competition remain under-researched (Smith and Cushion, 2006). Furthermore, the dynamic, evolving nature of coaching practice in different micro-level contexts (e.g., Training Form and Playing Form) and over extended periods (e.g., whole seasons) is little understood (Partington and Cushion, 2013). Similarly, much of what coaches do before and after training and matches, their work away from the pitch, has gone unrecorded in systematic observation studies (Jones, Housner and Kornspan, 1997), and surprisingly, given the availability of the RUCOI (Brewer and Jones, 2002) for over a decade, there has been almost no work done in top-level rugby union.

2.3.2: COACHING PEDAGOGY

Despite efforts to draw recommendations from the extant literature (Dodge and Hastie, 1993; Kahan, 1999), simplistic behavioural prescriptions are unlikely to successfully transfer from one context to another (Abraham and Collins, 1998;

Partington and Cushion, 2013). Moreover, when discussing their own practice, coaches tend not to describe it in terms of behavioural frequencies, but as desired athlete outcomes (e.g., empowerment, Nash *et al.*, 2008; enjoyment, Bennie and O'Connor, 2010) or with (perhaps cursory) reference to pedagogical strategies (e.g., athlete-centredness, Carless and Douglas, 2011; Partington and Cushion, 2013; Cushion and Jones, 2014). Thus, a discussion of “effective coaching practice”, in the sense of an established set of coaching behaviours (Dodge and Hastie, 1993), seems less functionally connected with real-world coaching than an appraisal of coaching pedagogy. Of the various pedagogies discussed in the literature of physical education (PE; e.g., Mosston and Ashworth, 2002) and coaching, including nonlinear pedagogy (Renshaw, Davids, Shuttleworth and Chow, 2009) and Problem-Based Learning (Jones and Turner, 2006), athlete-centred and game-based approaches have attracted the most attention from practitioners, coach educators and scholars.

As the name suggests, athlete-centredness revolves around athletes’ needs (Kidman and Hanrahan, 2011), which helps to explain the conceptual links that have been made to humanism, with its concern for the holistic development of each individual (Lombardo, 1999). Advocates of athlete-centredness espouse coaching practices that empower athletes to make their own choices and improve their self-awareness (Kidman, 2010). Specifically, Kidman and Lombardo (2010) promote the use of game-based training activities to provide meaningful learning opportunities and to enhance motivation; questioning, to consciously engage athletes in problem solving; and the creation of an explicit team culture, founded upon shared values. In these ways, athlete-centredness can be contrasted with more traditional, coach-centred practices, where the coach is highly prescriptive and controlling (Nelson, Cushion, Potrac and Groom, 2012). It has therefore been argued that athlete-centredness not only supports athletes’ competitive performance and enjoyment but can also lead to the trust and respect desired by coaches (Kidman and Lombardo, 2010). Moreover, some of its core principles, particularly understanding and responding to athletes’ needs, have gained eminent support (e.g., Lyle, 2002b; Cassidy *et al.*, 2009; Cushion, 2010; Wharton, 2011).

Athlete-centred coaching is now promoted by governing bodies (Douglas and Carless, 2008), including the Rugby Football Union (Reid, 2003), and is clearly

established in rugby coaches' terminology (Kidman, 2005; Lee, Shaw, Chesterfield and Woodward, 2009; Kidman and Lombardo, 2010; Harvey, Quay and Light, 2014), as it is in other sports (Nash *et al.*, 2008; Kidman and Lombardo, 2010; Partington and Cushion, 2013). Its popularity may be owed to the apparent connections that can be drawn between the espoused outcomes of athlete-centredness and various typologies of effective coaching. For instance, Horn (2008) proposed that high levels of sport enjoyment and successful performance will result from effective coaching, matching claims about the outcomes of athlete-centredness (Kidman and Lombardo, 2010). Similarly, the characteristics identified above appear amenable to many of Côté and Gilbert's (2009) notions of effective athlete outcomes (competence, confidence, connection and character), as well as to the importance of recognising individual athlete differences (Côté and Sedgwick, 2003) and to the promotion of an autonomy supportive coach-created motivational climate (Mageau and Vallerand, 2003; Conroy and Coatsworth, 2007). Finally, there may be congruence with Sophia Jowett's application of three interpersonal relationship constructs (closeness, co-orientation and complementarity) to the coaching process (Jowett and Cockerill, 2003). However, there is a dearth of empirical inquiry examining if affective or performance-referenced outcomes result from a genuinely athlete-centred approach to coaching (Potrac and Marshall, 2011), a position compounded by the fragmented lack of clarity in the coach-effectiveness literature (Cassidy *et al.*, 2009). As such, the proposed similarities between principles of athlete-centred coaching practice and effective athlete outcomes must be considered superficial at present.

Other issues have also been raised with athlete-centredness in coaching, not least that it lacks an underpinning theoretical base (Potrac and Marshall, 2011). Cushion (2010) also highlights the irony of approaches that emphasise being responsive to individual needs on the one hand, but then prescribe a singular approach to coaching practice on the other. Illustrating this point, Potrac and Jones (2011), drawing on Jones and Standage's (2006) earlier critique, noted that certain coaching contexts could be incompatible with the principles of athlete-centredness. Indeed, Côté and Gilbert's (2009) work postulates that effective coaching practice is sensitive to individual athlete needs within the coaching context. Thus, where athletes, particularly those accustomed to a didactic approach, are resistant to

suddenly being engaged in the decision-making process, the uncritical implementation of Kidman's notion of athlete-centredness could be judged ineffective (Potrac and Jones, 2011). Instead, Cushion (2010) proposes a reworking of athlete-centred rhetoric to be about receptivity, flexibility and differentiation. In other words, optimum or effective coaching practice will be flexibly and continually tuned to the needs of athletes and to the coaching context (Saury and Durand, 1998).

Often connected to athlete-centred pedagogy (e.g., Kidman, 2005; Potrac and Cassidy, 2006; Light and Evans, 2010), game-based approaches, incorporating Teaching Games for Understanding (TGfU, Bunker and Thorpe, 1982), Play Practice (Lauder, 2001), Tactical Games (Mitchell, Oslin and Griffin, 2013) and Game Sense (Light, 2004), advocate that games should be the primary training mode for athlete learning (Oslin and Mitchell, 2006). These games are modified by altering different conditions (e.g., rules, goals, boundaries etc.), creating variable performance contexts, which aim to reflect the realities of actual competition (Davids, Araújo, Correia and Vilar, 2013). Questioning is also central to game-based approaches, enabling coaches to prompt meaningful reflections on actual experience, check for understanding, draw knowledge from the athletes themselves and promote athletes' collaborative problem-solving and decision-making abilities (Light, 2006; Pearson and Webb, 2008). This emphasis on athlete autonomy is one of the most obvious links to the athlete-centred pedagogy. The overall aims of game-based approaches are that athletes develop tactical and strategic knowledge, as well as technical and psychosocial abilities, which improve enjoyment and motivation, and more readily transfer to competitive performance (Harvey and Jarrett, 2014).

Game-based approaches contrast with the traditional skills-first, drills-next, games-last approach (see Browne, Carlson and Hastie, 2004). Even with the promise of a game at the end, traditional coaching moves all too slowly towards this more realistic performance context (Williams and Hodges, 2005); coaches hold out for athletes to achieve a level of technical competence in isolation first (Light, 2014). Often, this flawed approach assumes that there are "gold standard" movement patterns that athletes must replicate for success, irrespective of the context or outcome goal (Williams and Hodges, 2005) - a "textbook" pass in rugby, for example (Passos, Araújo, Davids and Shuttleworth, 2008). Indeed, coaches regularly

present “one size fits all” technical models to be emulated by athletes, without considering their individual differences (Handford, 2006). This can lead to an internal focus of attention on bodily movements (Hodges and Franks, 2002). Yet, McMorris (2004 p.4) points out, “it is the outcome that is crucial, not how you look while performing the skill”. Thus, within game-based coaching, effective skills are instead developed during games, so that they are flexibly responsive to the dynamic circumstances of competition (Light, 2006).

The most prominent of the game-based approaches in the sporting context of the present research (rugby union) is Game Sense (e.g., Evans and Light, 2007; Light and Robert, 2010; Thomas and Wilson, 2014). This is unsurprising given that Game Sense is actively promoted by rugby’s UK governing bodies (Reid, 2003; Light, 2013; Harvey and Jarrett, 2014) and, just as in cricket (Roberts, 2010), forms part of United Kingdom Coaching Certification (UKCC) requirements for rugby coaches. rugby union matches, like other team sports, are dynamic and highly complex performance settings, creating unique, challenging contexts for decisions and actions (Passos *et al.*, 2008). For example, the movements of the ball, team-mates and opponents alone create unpredictable and rapidly changing circumstances within which rugby players must perceive, decide and act (Passos *et al.*, 2008; Light, Harvey and Mouchet, 2014). Thus, flexible means of skill execution are necessitated, in order to respond to the opportunities and constraints of the immediate, highly time-sensitive context (Passos *et al.*, 2008). Exemplifying this, the very best players, Light *et al.* (2014) drawing on Bourdieu (1990b) suggest, are renowned for their *sense pratique*; they are masters of their unfolding worlds and of situated strategies - they are equipped with a well-practiced “sense of the game” (Light, 2004), enabling them to succeed under enormous pressure. However, there is evidence to show that, despite its benefits and formal promotion, as well as an emerging theoretical grounding in dynamical systems theory (e.g., Handford, Davids, Bennett and Button, 1997; Passos *et al.*, 2008; Pill, 2014), Game Sense is valued but not widely or fully implemented by rugby coaches (e.g., Evans and Light, 2007; Light and Evans, 2010; Light and Evans, 2013).

The extent to which athlete-centredness and Game Sense are understood and operationalised *in toto* by coaches, even those who make claims to do so, is unclear.

For example, Partington and Cushion (2013) found that coaches who described their practice in terms of the rhetoric of advanced pedagogies actually coached in more traditional ways. Similar gaps between coaches' espoused and actual practice have been identified elsewhere (e.g., McCallister *et al.*, 2000; Harvey *et al.*, 2013) and various challenges facing the well-intentioned coach have been raised (e.g., Light, 2004; Roberts, 2011; Cushion, 2013; Thomas, Morgan and Mesquita, 2013). For example, Light (2004) highlighted the extra time a Game Sense approach can take to develop players, which will likely be a particular concern for representative coaches, whose jobs depend upon results, but often have less time with their athletes (Lyle, 2002b). Thus, the implementation of any pedagogy will be shaped by the coach's interpretations of its concepts and principles (Light and Evans, 2013) and by the coaching context (Harvey, Cushion and Massa-Gonzalez, 2010), which includes athletes' receptivity or resistance to particular practices (Cushion, 2010).

Consequently, research must examine more specifically *what* coaches mean when they talk of certain pedagogies (their declarative knowledge) as well as *how* and *why* they actualise these ideas (or do not) in the coaching process (their procedural knowledge). Finally, existing research on the implementation of Game Sense comes almost exclusively from Australasia (e.g., Light, 2004; Light, 2006; Evans and Light, 2007; Kidman and Lombardo, 2010; Light and Evans, 2010; Pill, 2012; Light and Evans, 2013; Pill, 2013; Pill, 2014). Therefore, research in different countries is justified. Specifically, with the formal promotion given by national organisations to athlete-centredness and game-based approaches, the context of UK rugby coaching may offer valuable insight.

2.3.3: INTERACTIONS WITH OTHER ASSOCIATES

A tendency in studies of coach behaviour, especially with single method systematic observation designs, has been to maintain a literal distance between researcher and practitioner in order to satisfy positivist concerns for objectivity and neutrality (e.g., Franks, Johnson and Sinclair, 1988). The result is a detached understanding of coaches' practice, irreconcilably representing their interactions in a linear way, often with the coach as an active instigator and the athlete as a passive receiver of quantitatively reported behaviours (Jones, 2007). In contrast, more insightful and

interpretive research approaches, including coaches' own autoethnographic narratives (e.g., Jones, 2006; Jones, 2009; Potrac, Jones and Nelson, 2012) have shown their interactions to be reciprocal. In other words, coaching practice and the coaching process are shaped by the coach's relationships with others (Potrac *et al.*, 2000; Poczwadowski, Barott and Peregoy, 2002).

Coaches interact with a number of associates in the coaching process, including: athletes, assistant coaches, parents, sports science specialists (Côté *et al.*, 1995c), doctors, physiotherapists (Dijkstra, Pollock, Chakraverty and Alonso, 2014), team managers and a host of others (Lemyre, Trudel and Durand-Bush, 2007), dependent upon the coaching context. In terms of recognising the coach's part in these social networks, and of these relations' contribution to coaching's complexity and holism, qualitative research methods in particular have contributed to current understanding. For example, Rathwell *et al.* (2014) recently reported the importance of the head coach in defining the roles and responsibilities of assistant coaches, and in their development. Furthermore, the in-depth life-story method has highlighted the importance of interactions with other coaches for learning and development (e.g., Jones *et al.*, 2003; Callary *et al.*, 2012), as have combinations of interviews, participant observations and document analysis (e.g., Gilbert and Trudel, 2001; Gilbert and Trudel, 2005). Moreover, interview data have underpinned the characterisation of coaching as a political act, where coaches are influenced by power-ridden relations with assistants and team officials (Potrac and Jones, 2009a; Santos, Jones and Mesquita, 2013), whilst simultaneously needing to cooperate with such associates within chains of communication during competition (Mouchet, Harvey and Light, 2013). Therefore, coaching is not a mechanistic act, but a contested and collaborative endeavour, shaped by the ideologies, expectations and practices of the coach and their associates (Potrac and Jones, 2009b; Purdy, Jones and Cassidy, 2009).

Another methodological approach, ethnography, holds particular promise for examining the complexity and holism of the coaching process (Lyle, 2002b; Mallett, 2007; Cushion, 2014). Importantly, with reference to the limitations already highlighted in the coaching literature, ethnography is concerned with *what* people do and *why* in social settings (Schensul, Schensul and LeCompte, 1999). Moreover,

ethnography enables coaches' practice to be examined both on the pitch, in relation to training sessions (e.g., Cushion and Jones, 2014) and off the pitch, in meeting rooms, for example (e.g., Purdy *et al.*, 2009). Yet, few ethnographies of coaching have been published to date (e.g., Poczwardowski, Barott and Henschen, 2002; Cushion and Jones, 2006; Purdy *et al.*, 2009; Cushion and Jones, 2014). Indeed, very little work of any type has examined head and assistant coaches' interactions during the coaching process. Despite this, the limited number of existing ethnographies have shed some light upon the reciprocal relations of coach and associates and of the context's impact on coaching practice (see 2.4 *Context: Contextual Factors*). For example, Purdy *et al.* (2009) utilised Bourdieu's concepts of capital and field – respectively someone's social assets or resources and the structure of their social relations – to express the micro-sociological interactions occurring within the meeting room, among other places, of an elite rowing programme. Here, the principal researcher's presence in the coaching context, over an extended period, enabled her to trace the struggles arising between athletes and coaches, coaches and coaches, and athletes and athletes, as a result of one rower's decision to opt out of the programme. Specifically, Purdy *et al.* (2009) noted transitions of power from coach to athlete and back again, within their shared context, affirming the challenging, dynamic nature of coaches' social practice.

Allied with the recognition that the coaching process is essentially an interactive endeavour, social theory has much to offer in developing understanding of coaching practice (Schempp, 1998; Potrac and Jones, 1999). Accordingly, advocates have placed social theory at the heart or even as the sole focus of coaching textbooks (e.g., Jones *et al.*, 2004; Cassidy *et al.*, 2009; Jones, Potrac, Cushion and Ronglan, 2011; Potrac, Gilbert and Denison, 2013), and coaching is increasingly being viewed through a sociological lens by a host of researchers in journal articles (e.g., Potrac and Jones, 2009a; Denison, 2010; Groom, Cushion and Nelson, 2012; Partington and Cushion, 2012; Potrac *et al.*, 2012; Light and Evans, 2013; Cushion and Jones, 2014). Many social theorists' work can inform coaching research (Jones *et al.*, 2011); yet, that of Pierre Bourdieu has perhaps been the most widely used to date (e.g., Cushion *et al.*, 2003; Cushion and Jones, 2006; Christensen, 2009; Purdy *et al.*, 2009; Taylor and Garratt, 2010b; Graham, McKenna and Fleming, 2013; Light

and Evans, 2013; Cushion and Jones, 2014). Bourdieu's ideas, especially the concepts habitus, capital and field, are appealing for their focus on social practice - the essence of coaching (Jones *et al.*, 2002), for their grounding in empirical study, and for attempting to resolve traditionally opposed structuralist (structure) and subjectivist (agency) viewpoints (Cushion and Kitchen, 2011). In this way, Bourdieu's "thinking tools" (Bourdieu, 1989 p.15) are most useful for approaching some of the research compiled in this review, especially that which shows, "coaches act both as they choose and how they are influenced to choose" (Jones *et al.*, 2002 p.37). Given their value in understanding coaching, in the sense of connecting the particular of coaching practice with the more general, sociocultural context of the coaching process, Bourdieu's concepts are further discussed in the next section.

2.4: CONTEXT (CONTEXTUAL FACTORS)

2.4.1: RELATIVELY STABLE CONTEXTUAL FACTORS

At a broad level, relatively stable demographic factors including sport type, age group, athlete gender and competitive level function as descriptors for practitioners and scholars alike in distinguishing between coaching contexts. In this vein, a number of classifications have been proposed (e.g., Lyle, 2002b; Trudel and Gilbert, 2006; Côté, Young, North and Duffy, 2007) meaning the context of the present research could be described using a confusing array of terms. However, what is more clearly distinguished within the existing literature is participation coaching and performance coaching. Lyle (2002) describes participation coaches as those concerned with the initiation of novice athletes into sport and with supporting the involvement of recreational or casual participants. In contrast, performance coaches are those more concerned with supporting athletes who tend to be more committed to preparation to achieve specific performance goals in competition (Lyle, 2002). Although the present research was clearly conducted in a performance domain, in the absence of an agreed typology of performance coaching contexts (Gilbert, 2007), the term *top level* will be used – in the sense of being the highest level of competitive performance achievable by players and coaches in the sport. As such, the context of the present research can be described as a top-level, representative team (where athletes are selected to represent their country), with semi-professional staff (coaches

and medics was paid but not full time) and amateur (athletes were not paid) participants.

The different characteristics of coaching contexts invariably shape the roles and tasks of incumbent coaches (Gilbert and Trudel, 2004b). For example, the top-level coach will likely operate in relation to recognised competition structures; be engaged in intensive preparation programmes; have extensive though intermittent contact with athletes; and set long- as well as short-term objectives and competition goals (Lyle, 2002b). Thus, planning, recording, monitoring and analysis would appear to be essential tasks of the coach (Lyle, 2002b). More specifically: planning will probably be broken down into units of time, scope and detail (e.g., daily, monthly, annual); recording and monitoring will involve the collection and management of various data; and analysis will underpin the attempted control of variables that in turn regulate athletes' engagement in training and competition (Mallett, 2010). Furthermore, Mallett (2010) acknowledged important social tasks, highlighting the need to negotiate goals with athletes; to recruit, select and manage athletes and staff members; and to liaise with stakeholders (e.g., governing bodies). In addition, Woodman (1993) foregrounded the tasks of providing technical and tactical input; dealing with injury and rehabilitation; managing risk in training and competition; coordinating assistants, specialists and athlete support services; demonstrating leadership and dealing with the media; and crucially, the flexible modification of all these things to achieve effective outcomes for athletes. In other words, coaching involves a multitude of tasks, which often change and evolve, such that even coaches themselves struggle to comprehend and express the magnitude of their roles (Nash *et al.*, 2008).

The coaching context is also the meeting place of complex, intangible facets of human societies, including ideology, ethics, history and culture (Jones, 2000). As such, a significant challenge for coaches, particularly in the interdependent context of team sport (Harwood and Beauchamp, 2007), is to reconcile the idiosyncratic goals, motives and values of themselves, their athletes, employers and stakeholders (Potrac *et al.*, 2000; Jones and Wallace, 2005). Furthermore, history and culture impinge upon the coaching process, in that practitioners often operate with reference to long established accepted practices and shared traditions (Cushion *et al.*, 2003). For

example, the traditional coaching pedagogy in soccer is drill-based, coach-centred and highly prescriptive (Williams and Hodges, 2005; Harvey *et al.*, 2010). Such controlling, disciplined and authoritarian regimes are also evident in elite judo (d'Arripe-Longueville *et al.*, 1998), Australian rules football (Kellett, 2002) and elite rowing (Purdy and Jones, 2011). Alternately, studies of elite sailing (Saury and Durand, 1998), gymnastics (Côté *et al.*, 1995a) and archery coaching (d'Arripe-Longueville *et al.*, 2001) have reported more emancipatory, autonomy-supportive practices including the use of questioning behaviours. There are also suggestions that strong traditions and culture shape the practice of rugby coaches (Light and Evans, 2010; Light and Evans, 2013; Mouchet *et al.*, 2013), though as in each of the contexts identified about, perhaps with the tentative exception of soccer (Cushion *et al.*, 2012b), there is insufficient evidence from which to draw sweeping conclusions. What is clear is that such traditions are reproduced over time by athletes and coaches who embody aspirational images of how to coach, to which they have been socialised through their own experiences and observations of coaching (Potrac *et al.*, 2007).

Building upon an understanding that the coaching process is vulnerable to so many and varied social pressures, Cushion and Jones' (2006; 2014) work in particular provides much needed contextually informed portraits of the coaching process in action. Utilising an ethnographic methodology and Bourdieusian theoretical framework, the authors showed how the dominant authoritarian coaching culture in professional soccer militated against the club's and governing body's public emphasis on player-centredness (Cushion and Jones, 2014). The apparatus of this control were found to reside not only in the position and power of the coach, but also in the complicit submission of the academy players, such that they unquestioningly accepted their limited autonomy, thus perpetuating the *status quo* (Cushion and Jones, 2014). That such a socialising "hidden curriculum" exists in professional soccer was considered in relation to both normalised everyday practices, subtly reminding players that coaches are "gatekeepers" to professional contracts (Cushion and Jones, 2014), and to the traditions of a wider coaching culture, with coaches' actions deeply rooted in what they uncritically believed is how a coach in their position should operate (Cushion and Jones, 2006).

The unknowing reproduction of practice is, according to Bourdieusian thinking, derived from habitus. Habitus is, though not easy to define in absolute terms (Cushion and Kitchen, 2011), dispositions (of coach and athlete) internalised from the social context which guide action (Bourdieu, 1990b). However, these dispositions are not necessarily learned in a conscious, formal sense, but ingrained through unconscious habituation (Jarvie and Maguire, 1994). Hence, habitus can help to explain the inability of coaches to apprehend the meaning of their practice when prompted (e.g., Light and Evans, 2013), which instead often operates at an unarticulable, tacit level (Nash and Collins, 2006). Moreover, the notion of habitus helps to bring sense to the players' unquestioning acceptance of the coaches' authority (Cushion and Jones, 2006). Thus, in terms of the cultural origins of authoritarian coach-athlete relationships in Cushion and Jones's work (2006; 2014), the coaches' dispositions were socially inscribed during their own experiential apprenticeships learning soccer's traditions. These were then embodied in their own coaching practice and contributed to reproducing a field - the social arena, in this case the coaching context - where the authoritarian discourse was further legitimised. Accordingly, the coaches' capital - their endowment of various resources and the effectual ability to wield those within a field of relationships (Bourdieu, 1986) - owing to their superior social positions relative to the players and as "gatekeepers" to professional contracts (economic capital) - engendered the athletes' tolerance and simultaneous perpetuation of an authoritarian habitus within the field. Importantly, the use of Bourdieu in these ways draws attention to the coach as a socialising agent, but one who's power players must assent to and who is themselves shaped by their socio-cultural world (Jones *et al.*, 2002). Consequently, any attempt to examine coaching practice must be located within an understanding of social context and the place of the individual within the field (Côté *et al.*, 1995c; Cushion and Jones, 2014).

In an all too rare example of this approach, Jones *et al.* (2005) adopted a more "inside-out" perspective on lived experience in the coaching process, demonstrating how destructive the coach can be as a socialising agent. Their study reflected upon the life of a former elite swimmer, and particularly how her coach, as a perceived expert or more knowledgeable other, contributed to her disordered eating. Specifically, Jones *et al.* (2005) found that the swimmer's self-identity was strongly

linked to the coach's perceptions of her performance, particularly when he suggested that it would be beneficial for her to lose weight. However, the authors also placed the coach's actions within the social context of elite swimming, where a functionalist tendency to slenderness was linked to the dominance of a performance pedagogy, and within the wider culture of modern society, where lean bodies are highly valued. This analysis further foregrounds the coach as a conduit of culture and demonstrates that coach education must do more to adequately equip coaches with the knowledge to impact athletes positively from their positions of social privilege.

Finally, Light and Evans's (2013) work on coaching pedagogy (acknowledged in section 2.3.2) should be revisited in the same vein as they too made connections between micro practice (of elite rugby coaches) and more macro contextual factors. Specifically, they highlighted how the coaches' habitus shaped a general disinclination towards adopting a more innovative pedagogy (Game Sense). An apprenticeship of starting to play, gaining experience, becoming captains and transitioning to coaching contributed to the development of coaching habitus over life times of involvement in the sport. These often shared but at the same time individual life experiences were proposed as reasons for the broadly similar, though more narrowly idiosyncratic dispositions of the four participants (Light and Evans, 2013). Such findings suggest that experiences outside the sporting context (e.g., other careers) must also be taken into account in understanding coaches' philosophies, knowledge and practice, which adds to the need for more life history or biographical approaches in coaching research (Cushion *et al.*, 2003).

2.4.2: RELATIVELY DYNAMIC CONTEXTUAL FACTORS

At a micro-level, contextual factors refer to the normally less stable local environment of the evolving coaching process (Côté *et al.*, 1995c). The most notable study to report how micro-contextual factors shape coaching practice is Saury and Durand's (1998) study of French, Olympic sailing coaches. Specifically, they found that variable weather conditions, temporal constraints, competition requirements and the uncertainty of human performance all impacted upon the coaching process. For example, a coach's perceptions of athletes' cognitive, emotional and physical involvement in a task were central to how they balanced the intensity of training in

relation to the coach's and athletes' objectives. In this way, Saury and Durand (1998) drew attention to the negotiated nature of the coaching process, with the athletes sharing in the responsibilities of decision making and the coaches using questioning to promote this. Moreover, they highlighted various means of adaptation that helped the coaches to operate in the face of such complexity. For instance, standard organisational routines enabled training to be organised quickly, while anticipatory and flexibly contingent planning allowed coaches to reduce the cognitive load required to adapt when the context necessitated change. In these ways, coaching practice is more akin to Bourdieu's (1977) "regulated improvisation", in which practice is responsive to challenges and dilemmas within limits or boundaries.

In another insightful study, Gilbert *et al.* (1999) used observations, follow-up interviews and stimulated recall to identify the micro-contextual factors impacting the decisions of youth ice hockey coaches to talk to players, assistants or officials, make substitutions, or to not react during matches. The number of factors (21) reported serves to reinforce the significant complexity of the coaching process, with coaches incorporating dynamic information from the field and various forms of knowledge. Specifically, decisions were shaped by objective information (e.g., match score, time remaining, injury) and subjective information (e.g., team and player performance, officials' performance, coach's prior actions), as well as knowledge of player characteristics (e.g., habits, skill level, physical attributes) and knowledge of the sport (e.g., rules, experience). From this, it is obvious that field information in different contexts will vary continuously and thus, that multiple factors will combine in different ways at different times to inform practice. Therefore, just as Saury and Durand (1998) noted in their study, the practice of coaches must be continuously tuned to the context.

It also seems obvious, however, that the nuanced nature of so many factors in the coaching context will at times coalesce to present ethical, pedagogical and practical dilemmas for the coach (e.g., Drewe, 2000; Cushion, 2013). For example, the benefits of game-based activities were identified previously, but Light (2004) acknowledged that Game Sense coaching takes longer to see results than with more traditional approaches, and it can also appear more chaotic. Thus, the coach, particularly in the highly scrutinised world of top-level sport, faces an

understandable dilemma between the orderly aesthetic and short-term gains of culturally accepted practice, or adopting a more long term, player-centred vision that challenges the established culture. Another seemingly common issue facing coaches relates to their management of components of the “sport ethic” (Ryall and Olivier, 2011). The sport ethic encompasses the cultural norms of athletes dedicating all and making sacrifices to play their sport, relentlessly striving to achieve perfection, taking risks and playing through pain, and ignoring all obstacles in pursuit of these objectives (Hughes and Coakley, 1991). In view of this, Drewe’s (2000) work with Canadian university coaches brought attention to numerous ethical dilemmas, but especially the decision of whether to play an athlete who is injured. Here, the coaches’ philosophies helped to guide their actions, with a concern for the individual versus a desire to win mediating their choices (Drewe, 2000).

As well as better engaging with the situated complexity of the coaching process, the studies highlighted in this section demonstrate that coaches do cope and perhaps thrive at, “the edge of chaos” (Bowes and Jones, 2006). Indeed, Olusoga and colleagues (2012) recently identified the strategies of Olympic coaches, including having “down time” and maintaining routines, which enabled them to manage stress and deal with the opportunities and challenges of working in such a challenging context. As such, Jones and Wallace (2005; 2006) propose that coaches can be thought of as “orchestrators” of the coaching process as it unfolds. Orchestration denotes attention to detail; sensitivity to evolutionary circumstances; the need to work with and through others to achieve key objectives; and an awareness of when, in pursuit of the goals of the coaching process, to step in and when to let situations unfold without interference (Jones and Wallace, 2006). It therefore follows that coaching practice is a cognitive and physical activity (Nash and Collins, 2006), a mix of thought and deed, and a process for adaptive action (and inaction), produced in order to best balance order and chaos in search of productive outcomes (Bowes and Jones, 2006).

The need for dynamic, adaptive practice in coaching is clear, but this fundamental aspect of the coaching process has too often been ignored in scholarly analysis (Saury and Durand, 1998). Ultimately, the data presented from lone or episodic research methods such as systematic behavioural observation has served to

ossify conceptions of coach behaviour around easily comparable means, which are divorced from the realities of temporal variability and contextual constraints. How then, should coaching research be more sensitive to the intricacies of coaching and the dynamic conditions within which coaches operate? The stimulated recall method has been highlighted as one approach that can better locate coaches' decisions and actions in the coaching context (Lyle, 2003; Nash and Collins, 2006; Vergeer and Lyle, 2007; Lyle and Cushion, 2010; Lyle and Vergeer, 2013). Stimulated recall is a qualitative process, which aims to generate a better understanding of the cognitive activity that underpins observable social action (Dempsey, 2010). It involves a practitioner recalling their own practice, aided by the stimulation of video and audio evidence of their actions (Rowe, 2009). These introspections are characterised by explicit reflections on concurrent thought processes during action, which is how the method can give invaluable insight into *why* coaches behave as they do within specific contexts (Lyle, 2003).

Demonstrating the value of stimulated recall, studies with elite athletes (e.g., Hauw and Durand, 2004; Sève, 2004) showed that experts maintained an enriched sensitivity and adaptability to even subtle contextual factors, which corresponds well with recent work defining the characteristics of expertise in coaching (Nash *et al.*, 2012). Indeed, the stimulated recall carried out by Gilbert *et al.* (1999), described before in greater depth, highlighted the multifactoral nature of decision making that underpinned coaches' contingent and differentiated actions during competition. Similarly, Debanne and Fontayne (2009) undertook stimulated recall interviews with an international handball coach, who reflected on his decisions in relation to video footage of an Olympic quarter-final match. The authors identified a hierarchy of concerns that linked to adjustments the coach made during the match. For example, the coach monitored the implementation of a game plan and made various interventions when it was not working. First he gave instructions to the playmaker, and then substituted the playmaker in the absence of an improvement. Then the coach called a timeout and became highly directive in describing the tactics to be adopted. It is also of interest that in addition to recalling the contextual factors that underpinned his decisions in the action present, the coach also reflected explicitly on how he would alter his responses in the future. This suggests that confronting and

examining one's practice on video may be highly beneficial to coach learning, which would correspond with significant benefits found in research in a variety of professional contexts (Fukkink, Trienekens and Kramer, 2010), as well as tentative findings in coaching (Carson, 2008). As such, stimulated recall is a valuable research method and educational tool currently underutilised in coaching, particularly as it can better locate understanding of coaching practice in the naturalistic context of the coaching process (Lyle, 2003).

2.5: CONCLUSION

This review has critically examined research related to the coaching process, and has identified numerous strengths and weaknesses that help to inform and position the present project. Reflecting the confounding conceptual diversity in coaching research, an eclectic mix of literature has been synthesised that relates to themes including coaches' roles, knowledge, philosophy, interactions, contexts, and practice, among others. This eclecticism, though useful for informing current understanding of facets of coaching in isolation, has largely failed to reflect the complex but holistic and integrated nature of what coaches actually do, which is now widely acknowledged (e.g., Potrac *et al.*, 2000; Lyle, 2002b; Cushion, 2007a; Nash *et al.*, 2008; Cassidy *et al.*, 2009; Côté and Gilbert, 2009). The pervasive focus on specific aspects of practice has narrowed our view and consequently limited our overall understanding of the coaching process as a comprehensive, interrelated and interactive endeavour. Without research aimed specifically at the authentic wholeness of coaching in these terms, we risk perpetuating a complex-aware rhetoric that lacks an empirical grasp of coaches' situated practice (Jones, Edwards and Filho, 2014).

The literature contained in this review has been broadly organised around three constituent elements of the coaching process: the coach (personal factors), associates (social factors) and context (contextual factors). This conceptualisation, most closely aligned to the work of Côté *et al.* (1995c), but supported by others (e.g., Smoll and Smith, 1989; Chelladurai, 1990; Saury and Durand, 1998; d'Arripe-Longueville *et al.*, 2001; Jones *et al.*, 2002; Cushion *et al.*, 2006), draws attention to the simultaneously personal, social and contextual practice of coaching. Yet, there is a lack of research that examines how coaches experience and manage the interactions

between the fundamental components of the coaching process in their day-to-day lives. In other words, there is a need to examine both the particular and the general of the coaching process in relation to one another within their naturalistic domain (Cushion, 2007a). Consequently, it is clear that research must be conducted at the site of practice, in the everyday realities of coaching, if contextually informed portraits of the coaching process in action are to be developed. In this vein, ethnographic research (e.g., Purdy *et al.*, 2009; Cushion and Jones, 2014) has provided some of the most insightful contributions to the literature, and offers an underutilised means to counter simplistic and reductionist approaches to coaching's complex, dynamic and messy reality.

In addition to grounding research in coaching practice, the need for longitudinal investigations that utilise a range of methods to both encounter and move beyond coaches' subjective perceptions has been highlighted (Potrac *et al.*, 2002; Cushion and Partington, 2014). Such designs must be sensitive to the personal, social and contextual shapers of coaching practice as they seek to move closer to a more holistic understanding of the coaching process. For example, the potential of combinations of interviews, participant observation and document analysis, stimulated recall, and systematic observations of coaching practice have been noted in this review. Specifically, to address the limitations in existing work, a methodology is required that seeks to answer more comprehensively the interrogative questions *what, how, when, where* and *why* in relation to the conduct of the coach's practice. Moreover, accompanying the need for context-specific portraits of the coaching process (Gilbert, 2007), there is a need to extend the search beyond the "usual suspects" or typical contexts of research in the UK over recent years. To these ends, the present project is concerned with the operationalisation of the coaching process in the practice of a top-level, female head coach of an international women's rugby union team.

Chapter 3

GENERAL METHODOLOGY

3.0: INTRODUCTION

The review of literature highlighted an array of research that demonstrates coaching is a complex, contingent, negotiated, personal and social endeavour. The limits of existing representations of the coaching process were also highlighted, which corresponds to a growing realisation that different research approaches are needed if the field is to move forwards (Potrac *et al.*, 2014). Accordingly, a constructivist-interpretive perspective informed the present work, which assumes there are multiple realities (relativist ontology) and recognises the mutual construction of meaning (subjectivist epistemology; Denzin and Lincoln, 2013). Philosophically, these considerations oriented this research to the examination of the meaning that one coach took from her subjective but also socially situated and thus collective practice within the coaching process. Therefore, rather than taking a solipshistic stance - viewing the world as a purely individual, essentially imagined reality (Burrell and Morgan, 2011), the present work was undertaken in the belief that personal meaning is shaped by political, cultural and interpersonal forces, such that reality is constructed and re-interpreted within a dynamic social world (LeCompte and Schensul, 2010).

Constructivist-interpretive research aims to develop a naturalistic picture of a person's life (Denzin and Lincoln, 2013). In other words, it is concerned with understanding the world as it is at the level of subjective experience – in this case, a coach's "lifeworld" (Stearn, 1998). Within this paradigm, knowledge is thought to be socially constructed (Denzin and Lincoln, 2011). Accordingly, the personal reality that lay at the heart of this inquiry could only be accessed through subjective interactions with the coach and the coaching context (Potrac *et al.*, 2014). It was therefore essential through the research design to position myself, as researcher, as closely as possible to the coach and for as long as possible (Krane and Baird, 2005). Moreover, to develop richly detailed, personally and contextually situated accounts of what was found - key features of interpretive research (Geertz, 1993), a range of methods were needed.

In concert with these beliefs and objectives, ethnography, various interview techniques and documentary analyses are strongly associated with the constructivist-interpretive paradigm (Potrac *et al.*, 2014). These methods, and particularly ethnography, are about placing specific behaviours and events into a more meaningful understanding of their local context (Fetterman, 2010). It is concerned with the emic perspective, and particularly with those things that are meaningful to the native members of the context under investigation (Lett, 1990). In other words, the ethnographer wants to develop vivid portraits of people and practice, but within the richly detailed landscape of their social world (Hammersley and Atkinson, 2007); they want to understand why people think and act in the ways they do (Fetterman, 2010). Thus, the position of “insider” in ethnography, more than in any other research approach, is believed to grant access to the beliefs, intentions and behaviours of participants, and to the complex patterning of social practice (Cushion, 2014). Furthermore, there is a case for developing mixed-methods designs that integrate qualitative and quantitative approaches (Pawson, 1996; Curtner-Smith, 2001) because they help to develop more in-depth understanding of the complexity of the coaching process (Groom and Nelson, 2013). Consequently, systematic behavioural observation has a key role to play in understanding the coaching process, particularly in combination with the other methods (Potrac *et al.*, 2000; Cushion *et al.*, 2012c). Importantly, each of these methods correspond with various calls in the coaching literature to carry out more case-study research (Jones *et al.*, 2003; Lyle, 2007), naturalistically or in-situ (Lyle, 2002b; Cushion *et al.*, 2006), and using mixed-methods and more qualitative designs (Potrac *et al.*, 2000; Potrac *et al.*, 2002).

The mixed-methods approach of this longitudinal case study of a top-level rugby union coach is described below. Simply, mixed methods integrate quantitative and qualitative methods in ways that complement each other during the research process (Anguera, Camerino and Castañer, 2012). Valuably, with the aim of developing an authentic understanding of one coach’s experiences of the complex, holistic coaching process, Greene and Caracelli (2003) described the potential for mixed methods to achieve five key outcomes: triangulation – searching for the convergence of data; overlap in the different facets of the coaching process; the discovery of paradoxes; the sequential use of methods – one method informs the use

of another method; and expansion of the study's depth and scope as it develops. A mixed method also involves combining inductive and deductive logic in the analysis of data (Anguera *et al.*, 2012). In the following sections, efforts are made to show how the methodological procedures interacted and informed each other in the more complex reality of the season-long research process. For instance, the ethnographic approach provided the broadest context of understanding in situ, within which each of the other methods combined to produce more specific but interrelated data. Indeed, the combination of various methods was essential in order to connect the general of the coaching process with the particular of coaching practice. Collectively, these formed a methodological bricolage in which each method informed the others (Denzin and Lincoln, 2011), with the aim that this study's findings would be based on a convergence of evidence (Yin, 2014). However, before these methods are discussed, an introduction to the coaching context is given in order to clarify the use of key terms and to help to make sense of the local circumstances that shaped this study's procedures. Pseudonyms are employed to protect the identity of the players involved, a request made by the governing body when granting access for this research to take place.

3.1: THE COACHING CONTEXT AND GAINING ACCESS

Scotland Women is the top representative team for adult, female rugby union players in Scotland. The team is governed and administered by Scottish Rugby (SRU). The SRU's role is all encompassing, involving the promotion of increased participation, the management of competitions and club leagues (community rugby), and running representative teams (elite/performance rugby). This includes youth and adult as well as men's and women's rugby union.

The members of staff involved in the usual workings of Scotland Women included: head coach, Karen, the main focus of this case study; two assistant coaches, one who also acted as video analyst; a medical doctor; physiotherapist; two strength and conditioning coaches; and a team manager. All of these roles were part-time but paid, with many of the core staff also undertaking full-time careers away from rugby. A women's performance manager oversaw this whole group and was a full-time employee of the SRU. In addition, three technical specialists worked sporadically

with Scotland Women during the season: a scrum and lineout coach; a kicking coach; and a contact skills coach. A nutritionist also consulted for Scotland Women, but was rarely present at training or matches. Other people were involved with the team, but in less direct ways. For example, an SRU council member attended matches and post-match functions in an official capacity; and a National under-20s coach sometimes contributed to Scotland Women training sessions as a specialist positional coach. Finally, the SRU's head of coach development and their specialist coaching coordinator and coach education tutor, both full-time employees of the SRU, occasionally visited training sessions or matches in connection with coach education and development matters related to Karen and her team.

Each year around 30 players are selected from their clubs or universities to train with Scotland Women. These players are acknowledged to be the best in their playing positions in the country. The squad evolved during the season of study, predominantly as a result of injury, with some under-20s players stepping up to train and play in the senior team. In terms of international competition, Scotland Women take part in the annual Six Nations Championship and the quadrennial World Cup. However, the main competitive focus for Scotland Women during 2011/2012 was the Six Nations Championship; the World Cup having taken place during the previous season. As part of their preparations for the Six Nations Championship, Scotland Women travelled to play a competitive match (Autumn International) against the Netherlands. The 2011/2012 Six Nations Championship involved Scotland Women playing two matches as the home team, against England and France, and travelling to play Wales, Ireland and Italy as the away team.

The players and coaches came together for two types of preparation for the Autumn International and Six Nations Championship: Super Series games and training. The Super Series games were intended for player development (e.g., trying players in different positions) and as a selection tool (e.g., playing two potential players against each other). However, around 30% of Scotland Women players lived and played club rugby in another country, mostly England. These "exiles" were excused from the Super Series games because the standard of rugby was acknowledged to be higher in the English clubs and because of the longer travel times (e.g., flights) required to arrive in time after work or study on a Friday night.

Super Series games took place around once per month on Friday nights, and involved all home-based Scotland Women players, as well as some National under-20s players and individuals invited from Scottish club teams. These players were divided into two teams that played a fully competitive match. Guest coaches worked with each of the teams, leaving Karen and the other members of staff to watch, discuss and take notes.

Scotland Women training was scheduled in various ways during the season. These included single days, typically comprised of two training sessions, and whole weekends, which usually included four training sessions. However, the inclusion of meetings, fitness testing, performance analysis, strength and conditioning and recovery activities also made each training day (TD) relatively unique. The itinerary for international match weekends was similarly varied, although the team tended to be together for three days. Generally, the first day included travelling to the locality of the match and a training session, which was referred to as a “Captain’s Run”; day two was the match day, which was followed by a post-match function; and day three included reviews, analysis, recovery sessions and travel home. On two occasions the availability of flights and associated costs meant that Scotland Women’s time together for the Autumn International was one day shorter, and Match 5 of the Six Nations Championship was one day longer. Leading up to this study Scotland Women had not been successful in the Six Nations Championship, winning only three games in the five years prior to 2011/2012. Moreover, in the previous World Cup, Scotland Women won only two out of five games and did not progress beyond the pool stages. A timeline of the season’s main events is shown in Table 1.0.

Informed consent to complete this research was granted during the 2011/2012 pre-season via three official gatekeepers (Schensul and LeCompte, 2013a). First, I made e-mail contact with the women’s performance manager, whom I had met through my involvement as a club coach. I was then instructed to meet with the SRU’s head of coach development to outline the broad details of the research. After meeting with him, the performance manager granted permission to conduct the research on behalf of the SRU. We then met to cover the practical implications of being with the team. Here, issues of player confidentiality and anonymity were discussed in detail. Consequently, individuals other than Karen have been allocated

pseudonyms throughout this thesis. For data protection reasons, the performance manager then contacted Karen to propose the project before Karen confirmed to me her consent to proceed and to be named. Although ethnographers often face difficulties in gaining access (Pitney and Parker, 2009), there were no such issues in the preliminary stages of this project. My initial entrance to the field was similarly smooth, though not without its nuances and more subtle challenges. These experiences are examined in reflexive detail in *Chapter 6, The Coaching Process and the Research Process: a Collaborative, Reflexive Relationship*.

Table 1.0. 2011/2012-season itinerary of events.

Dates	Activity	Location
30 th September	Super Series games	Home
15 th -16 th October	Training Weekend	Home
28 th October	Super Series games	Home
5 th -6 th November	Autumn International	Away
2 nd December	Super Series games	Home
10 th December	Training Day	Home
16 th December	Super Series games	Home
7 th -8 th January	Training Weekend	Home
13 th January	Super Series games	Home
28 th -29 th January	Training Weekend	Home
4 th -6 th February	Six Nations Championship	Home
11 th -13 th February	Six Nations Championship	Away
18 th February	Training Day	Home
24 th -26 th February	Six Nations Championship	Home
4 th March	Training Day	Home
8 th -10 th March	Six Nations Championship	Away
16 th -19 th March	Six Nations Championship	Away

I first entered the field in September 2011, at the inaugural Super Series game of the new 2011-2012 rugby season. I was then present at every event or activity connected to the coaching process during the season², as if I too was a core member

² I was not present at a series of skills clinics, but neither was Karen – these we instead run by the assistant coaches.

of the coaching context. I attended every training session, meeting and competitive match, and I travelled with the team to international matches and stayed with them in their hotels. In-situ data collection ceased at the end of the season, in March, although two final interviews were completed in late June and then September 2012.

3.2: METHODS

3.2.1: ETHNOGRAPHY

Ethnography can be considered a research process and a product of research (Cushion, 2014); it is both the means of establishing and also of reporting a picture of a way of life (Wolcott, 1999). More specifically, the in-situ processes of participant observation and writing fieldnotes are ethnographic methods, while the richly detailed narrative accounts of peoples' lives are ethnographic texts (Wolcott, 1999). Other characteristics also help to position the present work as ethnography. Firstly, it was carried out over an extended period of time (Macphail, 2004), across an entire international rugby season, in which I became immersed in the everyday world of the coaching process. Secondly, I, the ethnographer, was the principle research instrument (Hammersley and Atkinson, 2007). As such, my time in the field, my observations, experiences and interactions, were recorded as detailed descriptions in a diary each day and, less conspicuously when on the training pitch, into a digital voice recorder or video camera (Emerson, Fretz and Shaw, 2007).

It is only by entering the field as a coaching researcher that a holistic picture of the coaching process can be established (Cushion, 2014). Indeed, observational fieldwork enables things to be recorded that a respondent may be unwilling to discuss, or contradict in interview methods (Cushion, 2014). Yet, the extent of an ethnographer's immersion can vary, from being a full participant (e.g., Purdy *et al.*, 2009) to a more separate view as a spectator (Patton, 2002). I tried to find a balance between being part of the context (emic), without going native to the point of being unable to also make sense of things from a more external, etic perspective (Fetterman, 2010). On the one hand, I sought to build rapport with Karen and her associates. My own biography as a women's rugby coach helped with this because I entered the field with a well-developed understanding of local terminology, structures and

practices, and having shared in various similar experiences as Karen³. These personal “tools”, or my cultural and social capital (Bourdieu, 1986), influenced the dynamics of my fieldwork, enabling me to relate to people and to see the meaning in things other researchers may have missed (Shaery-Eisenlohr, 2012). On the other hand, I sought to avoid over-rapport, which could have led to a prejudiced view of the coaching process, by carefully managing my closeness to Karen in particular (Cushion, 2001). Thus, I attempted to remain, “intellectually poised between familiarity and strangeness” (Hammersley and Atkinson, 2007 p.89). The practical means of achieving this are further described in *6.2.1: Entering the Field and Building Relationships*.

By cultivating the insider perspective, the present study relied upon interactions between researcher and researched. As such, the findings presented in the chapters that follow, rather than through positivistic value-free detachment (LeCompte and Schensul, 2010), were actually developed in social transactions between myself, Karen and her associates (O'Reilly, 2005). Transactions are negotiated processes, which meant that I entered the field aware that I would be involved in the construction, collection, interpretation and presentation of data (Cushion, 2014). For example, I knew that my own actions, questions, observations, comments and everything besides that formed the ethnographic research process would inevitably shape Karen's actions and thus the coaching process (Manning, 1997). Moreover, I knew Karen's reciprocal actions, responses and questions would inevitably shape the research process, influencing my interpretations of the coaching process (Manning, 1997). In his critique of this epistemology, Bourdieu insisted that ethnographers must account for their involvement in the process and products of research by taking another step back, a “double-distancing”, through reflexivity (Jenkins, 2002).

Reflexivity is a process of bending back on oneself or self-reference (Davies, 2008). For the ethnographic researcher, being reflexive involves paying attention to the influence of habitus, one's positions and actions, in an uncompromising, critical

³ Much as our biographies were similar, my experiences were inextricably male and Karen's female. Thus, our gendered identities may have been significant in shaping our interactions, as well as my understanding and interpretations of Karen's experiences. This issue is considered further in *Chapter 6, The Coaching Process and the Research Process: a Collaborative, Reflexive Relationship*, though Karen explicitly dismissed any significance related to the researcher-researched gendered dyad.

introspection on how they have shaped their findings (Davies, 2008). Moreover, reflexivity involves considering how the social conditions of the research impinged upon the researcher and their findings, which recognises that the ethnographer must become part of the context and culture they are trying to understand and represent (Brewer, 2000). Thus, by acknowledging the reciprocal intersubjectivity of the present work, a more collaborative reflexivity was fostered with Karen, such that she and I were both given a voice in attempting to account for the contingency of knowledge from our respective positions within the field (Marcus, 1998). Specifically, I wove reflexive considerations into my fieldnotes and engaged Karen in reflexive discussions during various methods, particularly towards the end of my fieldwork. Further details of the ethnographic procedures are given below and detailed reflexive analysis is undertaken in *Chapter 6, The Coaching Process and the Research Process: a Collaborative, Reflexive Relationship*.

3.2.1.1: PARTICIPANT OBSERVATION

Participant observation - the act of discovery through immersion - sits at the heart of ethnography because, “we cannot study the social world without being part of it” (Atkinson and Hammersley, 1994 p.249). Fieldnotes too are synonymous with the ethnographic process. Typically, these are recorded in a field diary and act as a mnemonic device to the ethnographer’s lived experiences (Emerson, Fretz and Shaw, 2011). However, the opportunities to record fieldnotes in-situ has been found to vary (Halstead, Hirsch and Okely, 2008). During this research, both field conditions (e.g., weather) and the importance of blending in to the context as a researcher (Pole and Morrison, 2003) necessitated the recording of notes in a diary, digital voice recorder and video camera at different times. For example, dictating a personal reflection using a digital voice recorder was preferable to writing notes during hours spent watching training in the rain and snow. Yet, I openly made written notes during team meetings where the taking of notes was common practice amongst the players and members of staff. In each case, these tools were extensions of myself, aids to my memory and vision of the complex patterning of social practice (Fetterman, 2010).

My fieldnotes recorded both what I witnessed and how I witnessed things in the field. Basic descriptive notes included where I was, who was there (and who was

not), their demeanour, what people said and did, and how others reacted among other things. Each evening these descriptions were, “written, rewritten and written over” (LeCompte and Schensul, 1999a p.33) so as to produce authentic detail while the lived-experiences were still “fresh” in my mind. During this habitual process I also considered the impact of my own position on these interpretations. Specifically, what else was going on that I was absent from; what was I unaware of, due to my own habitus, that was right in front of me; how my presence may have limited or encouraged particular behaviours or practices; why I connected emotionally with certain events or people and not others; and how another researcher might have looked at the same things in different ways? In these ways, the recording of fieldnotes was an epistemic process in that they captured the way I attempted to make sense of my experiences in the field (Blommaert and Dong, 2010). Moreover, following Hammersley and Atkinson’s (2007 p.162) instruction to ethnographers to really “*know one’s data*” (original emphasis), I repeatedly reread and listened to my fieldnotes throughout the research. Moreover, I added extra layers of detail and reflections on the data, particularly as I reviewed the video footage recorded of the coaching process (see 3.2.3: *Systematic Practice Observation*), making connections between events in different time frames, such that evolving perceptions and new interpretations were noted, and my deepening understanding and sense of place in the context was acknowledged. As Emerson *et al.* (2011) suggest, these more multi-layered commentaries began from day one, but naturally deepened and became more elaborate as more and more time was spent in the field.

Aside from the interactions of those I observed, my own interactions with members of the coaching process were a key component of the recorded fieldnotes. As Schensul and LeCompte (2013a) noted, the field provided many opportunities for casual conversations (informal interviews), which aided the development of rapport and understanding of Karen, her associates and their context. This was especially the case when travelling, over long periods and by various means, to matches and training. Time was passed getting to know people and discussing mutual interests, and simultaneously gathering information that was valuable to this investigation. Informal group activities, such as “chill-out time” in hotel bars and early-morning swims in hotel pools for the coaching staff also proved particularly valuable sites for

casual conversations, as did sitting with injured players at the side of the training pitch. Along with descriptive fieldnotes, these opportunistic interactions offered insights into the coaching process that might not have been gained through more formal interviews (Schensul and LeCompte, 2013a). Moreover, they often provided information to follow up through other methods, such as asking Karen to expand upon relaxed remarks about her relationships with assistant coaches or her thoughts on players during subsequent interviews. Additionally, these conversations sensitised me to look out for things as they played out over time. For instance, the harmony and discord in players' evolving relationships were revealed by their idle gossip, and Karen's emotions, health and willingness to engage in other research methods were communicated through the subtleties (and not) of her body language (e.g., her facial expressions in response to comments by the assistant coaches).

As part of my participant observations, video and audio recordings were made of a number of activities. Audio recording using a digital voice recorder (Olympus DS-30) was carried out where note taking and video recording was deemed unfeasible or inappropriate and where the speed or the complexity of a situation may have been lost if written notes alone had been taken. For example, audio was recorded in the players' changing room of Karen's half time talks during the Six Nations Championship. Video was recorded in different situations, using a high-definition digital video camera (Sony HDR-XR160), which was mounted on a manoeuvrable tripod (Sony VCT-R640). Specifically, post-match performance analysis meetings were videoed because they often included up to 30 people, creating complex overlapping conversations. This strategy was used to reduce the cognitive load placed on me as researcher (see Aunger, 2004), better enabling me to recall my experiences when developing the written fieldnotes each evening. Indeed, the principle purpose of recording audio and video footage was as an *aide-mémoire* to help recall what I was thinking as a participant observer during often extended periods of time spent with Karen and her associates.

Assorted documents, available to me only by being part of the field, were also valuable for drawing attention to key aspects of the coaching process during my fieldwork. Specifically, I was included on inter-staff and staff-player e-mails, and I received copies of session plans, match itineraries, organisational hierarchies, formal

staff responsibilities and Karen's *curriculum vitae* (CV), which she had used to apply for the head coach's post. Training plans were particularly valuable for understanding Karen's intended activities, practices and interactions and thus for subsequently investigating if they were implemented or not and the reasons *why*. Furthermore, emails gave a good indication of the extent of contact between Karen and her associates away from the contexts of training and matches, as well as instances of disagreement, challenge and harmony, which became insightful topics when followed up through other methods (e.g., interviews, observations). Finally, as Murchison (2010) expressed, the production of documents is a social practice, and as such, the circumstances and processes of their production, as well as their content, were of interest. Moreover, the extent to which people in the coaching context were given access to or excluded from receiving these documents was also a sign of social hierarchies, structures and informal groupings. All of these things contributed to my understanding of the coaching process as an ethnographic participant observer.

Alongside participant observation, a variety of qualitative and quantitative methods were utilised, which combined to form a methodological bricolage (Denzin and Lincoln, 2011). In order to give some sense of the ways in which the blend of information came together from these methods the following sections are arranged according (broadly) to the chronology of Cushion and colleagues' (2012b) proposed methodological framework. More specifically, data were gathered on the coach's philosophy, knowledge and intentions (before), behaviours, activities and actions (during), and reflections and reactions (after), referenced to the sequences of their practice (e.g., plan, do, review) and to the timeline of events of the coaching process (e.g., meetings, training, matches). However, it should be noted that the research design was not predetermined by the recommendations of Cushion *et al.* (2012b) – their paper was actually published after data collection ceased – but developed in response to the patterns I identified through participant observation.

3.2.2: SEMI-STRUCTURED INTERVIEWS

Interview methods are vital if we are to understand *why* coaches think and act in the ways they do (Purdy, 2014). However, interviews in the coaching literature have typically been used only as a follow up to systematic observations, without knowing

the coaches' intentions beforehand (e.g., Potrac *et al.*, 2002; Smith and Cushion, 2006). This approach has been limited by the possibility that respondents give incomplete, *a posteriori* justifications for their practice. In other words, the ways coaches explain their practice has not, to date, been accountable to their intentions, philosophies or plans established beforehand. Within the methodological bricolage, a series of semi-structured interviews focussing on these and other topics were planned to take place as early as possible during my time in the field. An advantage of semi-structured interviews over more formally structured encounters is that certain topics can be identified for discussion in advance, but without planning specific questions (Patton, 2002). This leaves the researcher free to construct questions in more natural, conversational ways and to adapt to the people and circumstances of the interview, as well as to probe, explore and check the responses given, adding further depth to the information gained (Purdy, 2014).

As Schensul *et al.* (1999) described, lots of things can interfere with conducting interviews in ethnography. Indeed, due to Karen's work commitments, scheduling these initial interviews at the very start of the research was extremely difficult. I should have expected that it would take time to "get my bearings" (Blommaert and Dong, 2010) before I would know when and where in that context to conduct the various methods detailed here and below. However, reflecting the more collaborative and negotiated nature of the overall research project, and knowing that she would be unable to complete the interviews for several weeks, Karen suggested that I e-mail her some "basic" questions to start with. Consequently, some of the provisional themes included Karen's background, knowledge, working life, education, coaching philosophy, and intentions for the season were revised into a questionnaire. Specifically, those questions that were likely to elicit information in lists or quantitative responses were chosen for the questionnaire. For example, "Please describe your playing experience" drew a sequential list of rugby teams, dates and notable achievements. Other "basic" questions related to Karen's coaching experience, coach education and professional development opportunities, and the formal roles and responsibilities of Scotland Women head coach.

Two semi-structured interviews were then conducted whilst away with the team for the Autumn International, when there was more time. The provisional

themes for these interviews incorporated those not covered in the questionnaire (e.g., working life, intentions for the season). Furthermore, responses to the returned questionnaire and Karen's CV were probed in further depth. My early field observations also provided a focus for these interviews. More specifically, Karen was asked about her coaching philosophy, her coaching role and her coaching practice. The first interview was conducted in a private office of the stadium, while the second took place in a quiet coffee shop at the airport. In each case, the locations were neutral, informal and free from distraction – we sat in sofas and I brought us coffee, and the players and associates were otherwise engaged – enabling Karen to speak more freely. Moreover, in trying to build rapport, the interviews began with informal conversation about the match and more general topics before incorporating the provisional themes (Ennis and Chen, 2012). Further details of efforts to build rapport are given in *6.2.1: Entering the Field and Building Relationships*.

Two semi-structured interviews were also conducted after the season had finished. These fulfilled two purposes. Firstly, I wanted Karen to be a more active collaborator in reflecting upon the research project as a whole (Gilbert, 2007). Therefore, discussions were initially directed towards Karen's motivation to take part in the research, the possibility of disruptions caused by the research process, my changing relationships with Karen and her associates, the perceived influence of the research process on Karen's practice, and the ways the coaching process constrained the research process. These themes were informed by the reflexive fieldnotes I had written and my ongoing analysis of data. As the interviews were largely informal in nature Karen was encouraged to also "take the lead", to ask questions and to probe my responses. Indeed, the interviews were more like guided conversations than traditional interviews (Riemer, 2012). Thus, Karen and I were engaged in a collaboratively reflexive dialogue, which sometimes challenged my interpretations of her way of life and my experiences as an ethnographer (see *3.3.3: Reflections on Research Quality* for further details).

An additional purpose in the second interview was to present Karen with the findings of the systematic observation analysis, which I had agreed to during initial negotiations about conducting the research. The topics of discussion during the second interview included Karen's perceived consistencies and inconsistencies

between her philosophy and practice; how the research process shaped her perceptions of good coaching; how the SR interviews compared to her coach education and professional development experiences; and her plans for the future. Again, this interview served to enrich the ongoing analysis of data. These post-season interviews were conducted in my home at Karen's request – my house was *en route* for Karen's journey to SRU meetings. All interviews conducted during this research (e.g., semi-structured and stimulated recall) were recorded on a digital voice recorder and transcribed verbatim. Following an approach similar to Potrac *et al.* (2002) and others (Côté *et al.*, 1995c; Abraham *et al.*, 2006), Karen checked a sample of the transcripts and no amendments were requested.

3.2.3: SYSTEMATIC PRACTICE OBSERVATION

Systematic observation is one of the methodological foundations upon which the field of coaching research has been built (Gilbert and Trudel, 2004a; Abraham and Collins, 2011). Moreover, it has been claimed that the objective evaluation of coaching practice remains essential to the continued study of the coaching process (Cushion *et al.*, 2012c). The present study built upon recent refinements to the method, namely the use of digital recording and analysis technologies and a move to classify the micro-contexts of coaches' behaviours (Morgan *et al.*, 2014), by utilising a newly developed instrument to analyse Karen's behaviours and activities. The value of systematically observing Karen's coaching practice in the present study was twofold. Firstly, as a condition of undertaking the research, the SRU (and Karen) wanted to see some "practical" and "objective" information result from my involvement with the team. In discussions, whilst negotiating access, it was agreed that a report describing Karen's practice based upon systematic observation data would be presented at the end of the season. Secondly, systematic observation provided a mechanism to critically reflect upon the accuracy of participant observations carried out as part of the ethnographic approach adopted. For example, fieldnotes recording perceived higher or lower than normal frequencies of coach behaviours in a training session could be checked against the systematically recorded practice data for that and previous training sessions. Thus, systematic observation

was a key catalyst to on-going considerations of research quality throughout the project.

Raw data were gathered using video recordings of Karen during training sessions and matches. The recording of video rather than hand notation was carried out for several reasons. Firstly, it provided a permanent record of the coach's practice, which could be reviewed over and over again for accuracy (Morgan *et al.*, 2014). Secondly, in comparison to hand notation procedures (e.g., Cushion and Jones, 2001; Potrac *et al.*, 2007), video could be recorded continuously without the need for observer rest periods. This allowed greater freedom to observe the broader coaching environment and take immediate fieldnotes, which would otherwise have been impossible. Thirdly, I was able to position myself and the camera in different places around the training pitch in order to be less invasive in Karen's practice. Indeed, the use of video recording in this way was part of my strategies to maintain an intellectual poise between familiarity and strangeness (Atkinson, Coffey and Delamont, 2003). Relatedly, it was already common for training and matches in this coaching context to be video recorded, which gave my procedures a degree of anonymity. These factors and the potential for participant reactivity in the presence of a video recorder (Darst, Zakrajsek and Mancini, 1989) are further considered in *Chapter 6, The Coaching Process and the Research Process: a Collaborative, Reflexive Relationship*. Finally, video footage was crucial to the stimulated recall method (see 3.2.4: *Stimulated Recall*).

A new instrument was developed for the present study, which incorporated adapted versions of Brewer and Jones' (2002) rugby union Coach Observation Instrument (RUCOI) and Ford and colleagues' (2010) time-use categories. The RUCOI was chosen for two main reasons related to the research objectives and context. Firstly, it was the only existing rugby-specific behavioural observation instrument available, and it had been validated using top-level coaches. Secondly, the instrument, almost uniquely, already contained a "conferring with assistants" category, which recognised the importance of the coach's interactions with more than their players alone. Ford and colleagues' (2010) time-use categories were chosen as the only ones to have previously been validated for use in combination with systematic behavioural observation instruments at the time of the data collection.

However, the adaptations described below were necessary to ensure that the new instrument was relevant to the context of top-level women's rugby union and for use in both preparation and competition settings.

The development of the new instrument was regulated by Brewer and Jones' (2002) five-step validation process, which has been used in several recent coach behaviour studies (Partington and Cushion, 2013). Initially, I became familiarised with the RUCOI and time-use instruments, gaining an in-depth understanding of their categories over a four week period (Lacy and Darst, 1989). This included repeated practice using video footage of five top-level rugby coaches, with gaps of 24 hours, seven days and 14 days to allow for memory lapse (Lacy and Darst, 1989). Unsurprisingly, footage of top-level female rugby union head coaches was not available. However, as research (e.g., Jambor and Zhang, 1997) has previously found no significant differences in behaviour between male and female coaches this was not considered a limitation of the present project. The familiarisation stage was concluded when mean retest agreements exceeded 80% (Siedentop and Tannehill, 2000).

The RUCOI and time-use instruments were then combined - hence referred to as the Rugby Coach Activities and Behaviours Instrument (RCABI) - and the new instrument modified to achieve contextual relevance for both practice and match activities. This process was facilitated by discussions with a researcher who was both experienced in observational analysis and also a former women's rugby union international. Discussion focused on the clarity of definitions and the authenticity of example descriptions. Modifications to the behavioural categories of the RCABI included the addition of a "commentary" category, to account for the coach's verbal descriptions of observable training or match action when uttered aloud and appearing to only be for the benefit of the coach and no one else. The "questioning" category's definition was also modified to include instances when the coach listened to players' verbal responses to questions, when the coach was asked a question by a player, and when they responded to a player's question in a way that did not fit another of the predefined categories (e.g., technical explanation). Similarly, "concurrent instruction" was refined to include verbal reminders or cues given to players that a referee might give during a match. For example, the coach could remind defending players to stay

onside, which a referee would do during a match. Additionally, “conferring with assistants” became “conferring with *associates*”, to account for the coach’s interactions with various people connected to the coaching process. Finally, a “competitive match” category was included in the contextual components of the RCABI, accounting for the coach’s actions during competitive events as well as activities more usually associated with training sessions (e.g., skills and technical activities).

In the third “step”, face validity was obtained for the RCABI. A panel of specialists including four international women’s rugby union coaches and two experienced researchers reviewed the categories and definitions to ensure that they were representative of top-level women’s rugby union coaching. Finally, in steps four and five, inter-observer and intra-observer reliability were calculated to ensure consistency in the recording of behavioural information using the modified instrument. The categories and definitions of the RCABI are shown in Table 2.0.

Throughout the season, all “on-pitch” training sessions and match activities involving Karen were recorded to video. As the venues of training sessions and competitive matches varied, the camera’s placement also varied; however, the camera was always positioned so as to capture Karen’s movements and behaviours, as well as the movements and behaviours of any individual she observed or interacted with. Karen also wore a wireless clip-mounted microphone (Sennheiser EW100G2) that transmitted to a receiver on the video camera, which allowed the simultaneous recording of her visual and audible behaviours.

Table 2.0. Categories and definitions of the rugby Coach Activities and Behaviours Instrument (RCABI).

CONTEXT	DEFINITION
Training Form	
Fitness	Improving or testing players' fitness (e.g. warm up, cool down, strength and conditioning)
Technical	Isolated technical skills. Unopposed, alone or in a group (e.g. passing, kicking drills)
Skills	Re-enacting isolated, simulated match incidents with or without a particular focus on technical performance (e.g. lineout, scrum)
Playing Form	
Small-sided games	Mach-like play with reduced numbers of players
Phase of play	Uni-directional match-like play, towards one try line (e.g. one team repeatedly attacks)
Conditioned Game	As small-sided games, but with variations to rules and areas of play (e.g. no offloads, aim to get 10 passes)
Competitive Match	
Match play	Actual match play
BEHAVIOUR	DEFINITION
Use of name	Use of name when speaking directly to a player or associate (e.g. "Good pass, Sophie")
Preinstruction	Directional information given to the player(s) before the activity starts. It explains how to execute the task. It is about the nature of the activity (e.g. "Three of you will defend this line")
Technical explanation	The coach states how the performance or activity relates to a match (e.g. "That's the angle you need to run on Saturday")
Concurrent instruction	Directional information, reminders or cues given about the nature of the activity during the activity, or instructions as if from a referee (e.g. "Get onside")
Concurrent positive feedback	Positive feedback specific to a skill or tactic given during the activity (e.g. "Great hip extension ")
Concurrent praise	Non-specific praise given during the activity (e.g. "Well done", clapping)
Concurrent correction	Information or feedback aimed at improving performance given during the activity (e.g. "Keep your depth", "Chin off chest")
Concurrent scold	Displeasure at poor performance given during the activity (e.g. "That's sloppy passing", shake of the head)
Positive skill-specific feedback	Positive feedback specific to a skill or tactic given after the performance or activity (e.g. "Your follow through was much better during that last set of passes")
Praise at skill attempt	Non-specific praise given after the performance or activity (e.g. "Good work", thumbs up)
Scold (skill)	Displeasure specific to the skill or tactic given after the performance or activity (e.g. "Your follow through was rubbish on that last pass")
Correction	Information or feedback aimed at improving performance given after the performance or activity (e.g. "Next time, delay your pass")
Questioning	Questions directed to the player(s). Listening to players' responses and questions. Responding to players' questions, unless falling within another category (e.g. "So, where would we play next?")
Positive demonstration	The correct performance demonstrated physically by the coach
Negative demonstration	The incorrect performance demonstrated physically by the coach
Hustle	Aimed at intensifying efforts (e.g. "Go, go, go!", repeated clapping)
Praise (general)	Praise about general behaviours including attitude and effort (e.g. "Great focus today")
Scold (general)	Displeasure about general behaviours including attitude and effort (e.g. "You're not listening")
Use of humour	Irony, sarcasm or wit related to the performance (e.g. "My Granny could have made that pass")
Management	Organising the activity. Setting out equipment and arranging players (e.g. "Three in tackle suits, please", putting out cones)
Conferring with associates	Verbal or non-verbal interaction with associates, other than players (e.g. "What did you think of her pass?", "Shall we stop this now?")
Other	Unaccounted for by the other categories or off camera
Observation	Periods of silent, diagnostic observation (clearly attending to the activity)
Commentary	Verbal descriptions of the performance or activity uttered aloud, but not to communicate with the player(s) or associate(s) (e.g. "That's a loopy pass")

3.2.3.1: LIMITATIONS AND ANALYSIS OF RCABI DATA

The clear recording of audio capturing Karen's verbal communication was not possible during every training session and competitive match. Severe weather conditions and digital signal interference caused by other broadcasting media at international matches prevented an audible signal from being transmitted via the clip-

mounted microphone. This did not affect the visual record of coaching activities captured on video. Table 3.0 shows when full audio was not collected in relation to specific events in the season calendar.

Table 3.0 Situations when full audio of Karen's verbal communication was not recorded.

Dates	Activity	Location
15 th October	Training Day	Home
6 th November	Autumn International	Away
10 th December	Training Day	Home
7 th January	Training Day	Home
4 th February	Training Session	Home
5 th February	Six Nations Championship	Home
18 th February	Training Day	Home
24 th February	Training Session	Home
17 th March	Training Session	Away
18 th March	Six Nations Championship	Away

In addition, the reader should be aware that Karen never took part in post-match warm downs (fitness activity), which were directed by the strength and conditioning coaches, because she was required to complete interviews with the media. Therefore, match day time-use profiles presented in *Chapter 5* are not a complete picture of the players' involvement in all types of activity.

In total, video footage of 2083.83 min of Karen's on-pitch coaching activities was recorded and analysed according to the contextual categories of the RCABI. 1031.15 min of the video recorded included full audio of Karen's coach behaviours, enabling analysis using both the contextual and behavioural components of the RCABI. Coaching practice data were analysed using the computer software, Focus X2. This software allowed the keyboard to be configured to record the frequency of each RCABI category by depressing appropriate keys. Focus X2 was chosen ahead of the Coach Analysis and Interventions System (CAIS) (Cushion *et al.*, 2012c) and other programs (e.g., Johnson and Franks, 1991) due to my familiarity with it, its ease of use and low comparative cost. Moreover, Karen was also familiar with the software – the video analyst used it to analyse Scotland Women players'

performances, making it easier to explain the analysis when I presented the data to her in the final post-season interview.

After each training session and competitive match, the footage was watched in full by the researcher. Following a similar procedure to Rushall's (1977) time-sampled event method, when a behaviour matching a predefined category of the RCABI was first observed, a log was created in Focus X2. Initially, the type of activity was selected. In order to calculate the sequence and duration of coaching activities, "start" and "end" memos were added at appropriate times to the activity logs. Next, the relevant behavioural key was depressed. This process was repeated for each new behaviour. When a behaviour continued for three seconds, the button was depressed again and the word "continuation" added to its individual behavioural log. Karen's coaching practice could therefore be analysed in terms of its temporal dimensions, such as specific behavioural events and the intervals of time she spent in each behavioural category, and according to the activity context of the behaviour.

Focus X2 retained a permanent record of each individual log along a sequential timeline, each of which was accompanied by a related clip of video. This enabled the activity and behaviour codes within every log to be checked for accuracy at the time of coding. Moreover, following the procedures outlined by Ford *et al.* (2010), intra-observer and inter-observer checks were carried out with a researcher experienced in observational analysis. Mean inter-observer agreement (Event 80.0%, Interval 81.0%) and intra-observer agreement (Event 82.0%, Interval 87.0%) with the modified instrument met or exceeded the accepted level of 80.0% (Siedentop and Tannehill, 2000). Furthermore, mean inter-observer (99.0%) and intra-observer (99.0%) reliability suggested a high level of consistency and accuracy in the time-use analysis.

3.2.4: STIMULATED RECALL

Stimulated recall (SR) has rarely been used in coaching research compared to the fields of nursing and business management (Lyle, 2003; Dempsey, 2010). However, the method is particularly suited to investigating the thoughts, perceptions, judgments and decisions a coach makes during their practice - the *why* behind the *what*. Or as Dempsey (2010) put it, SR demands people confront their habitus.

Indeed, it enables a more holistic and ecological understanding of the decision making process, recognising the interactions of the coach with social and contextual factors (Lyle, 1999a). In the present study, SR interviews were carried out using sections of audio and video of Karen's practice to stimulate her recall and explanation of behaviours and activities in training sessions and matches. Moreover, the examination of critical incidents in stimulated recall has been linked to the elucidation of values (axiology) underpinning coaching philosophy (Lyle, 2002b). This relied on the digital footage of Karen's practice collected during participant observations as well as that used for systematic observations.

Following procedures typical of SR (Lyle, 2003), a time-sampled selection of recorded data was used during the SR interviews of the present study. This was necessitated by the large amount of digital data gathered in the field and by the limited time Karen could commit to conducting interviews. Like Gilbert *et al.* (1999), both Karen and I were involved in the selection of specific sections of her practice to be reviewed. Indeed, the incidents she selected contributed to my interpretations as an ethnographer by telling me something about the personal meaning of her reflective practice (Francis, 1997; Knowles, Tyler, Gilbourne and Eubank, 2006). Firstly, Karen highlighted personally framed critical incidents in casual conversations held during and immediately after training sessions and competitive matches. This self-selection of incidents was implemented to help to address issues with *a posteriori* rationalisation (Day, Pope and Denicolo, 1990). For example, Karen wondered if she had "got the level right" during the Italy half-time changing-room talk. Accordingly, a section of audio recorded in the changing room from that half-time talk was chosen for an SR interview. I also selected critical incidents, using a series of criteria that incorporated information gained through various other research methods. Specifically, an incident was selected if Karen's activities and behaviours clearly contradicted or supported her stated philosophy and intentions (e.g., not to scold players); if Karen's practice seemed to respond to a particular opportunity, issue or challenge in the coaching context (e.g., she raised her voice to be heard over the concurrent weather conditions); if the RCABI data revealed a notably high or low frequency of behaviours or activities (e.g., she gave substantially more feedback to one player than normal); and finally, where her practice was

indicative of everyday themes or patterns in her coaching (e.g., that she spent a large proportion of her time conferring with her associates).

Karen was shown selected sections of her coaching practice during 15 SR interviews. Across these interviews, critical incidents related to a broad variety of the RCABI's behavioural categories and all of its activity categories were examined. However, only the raw video and audio data were shared during SR interviews; Karen was not party to any descriptive analysis of the RCABI data during SR interviews. This was done to promote, as much as possible, Karen's recall of her experiences and concurrent cognitive processes, which is the purpose of SR (Lyle, 2003), as opposed stimulating post-event reflections on her practice. Following Dempsey's (2010) advice, SR interviews were carried out soon as possible after recording the original audio or video footage. However, the dynamic and challenging context of the research prevented a consistent schedule of interviews being achieved. Consequently, SR interviews took place between one week and four weeks after the original event. This compares with existing SR procedures in coaching research where gaps of between one day (Gilbert *et al.*, 1999) and two years (Debanne *et al.*, 2009) have been used. SR interviews were always conducted in a quiet location agreed to by Karen. At the beginning of each interview Karen was provided with contextual information about the situation to be featured in the selected media playback. She was also reminded that the purpose of the SR interviews was to understand her concurrent thinking at the time of the event. Karen was encouraged, should she wish, to stop playback at any time to comment on and explain her coaching practice, and also to "think aloud" as the video or audio played. I was also able to stop the video or audio to ask question and used prompts to stimulate clarification, elaboration or examples of Karen's responses (Patton, 2002). In addition to using a digital voice recorder, each SR interview was filmed with a video camera. Following Debanne *et al.*'s (2009) procedures, the camera was placed behind Karen, in order not to disturb her, and focused on the screen, so as to match her comments to the corresponding events during transcription.

3.3: DATA ANALYSIS

To help manage the volume and variety of data arising from the mixed methods described above, a labelling system was used. Thus, all digital files and fieldnotes were named using a consistent system according to their data type, sequential order, date, research method and relationship to an event in the timeline (e.g., Interview 10, 25.02.12, stimulated recall interview, related to TD2). In accordance with the University of Edinburgh ethics committee requirements, digital data were stored in a password-protected hard drive, which was kept in a locked office, along with all non-digital data. Rather than forming a distinct stage towards the end of the research process, the analysis as well as the collection of both quantitative and qualitative data were ongoing throughout this ethnographic study (Hammersley and Atkinson, 2007). Indeed, the regular gaps of one or two weeks between training days or competitive matches enabled all data collected at one Scotland Women event to be analysed prior to the next event taking place. Moreover, these data were treated together in contributing to a convergent picture of the coaching process, with the qualitative data helping to explain the quantitative (Schensul, Schensul and LeCompte, 2013).

3.3.1: QUANTITATIVE DATA ANALYSIS

Both the quantitative and qualitative means of data analysis were focused on answering the study's main question: how is the coaching process operationalised by the head coach of an international women's rugby union team? With this in mind, and with a concern for developing an authentic understanding of the relationship between coaching practice and the holistic complexity of the coaching context, a descriptive analysis of the quantitative data generated through the RCABI was carried out. This was done in order to be able to explain the variability in the characteristics of Karen's practice, the relationships between different variables and other patterns evident in her coaching (Midgley and Christmas, 2014). In terms of the contextual structure of Karen's coaching practice, the difference in time spent in the three activity forms (Training Form, Playing Form, and Competitive Match) and their sub-activities (Fitness, Technical, Skills, Conditioned Games, Small-sided Games, Phase of Play, and Competitive Match) were calculated as a percentage of the total duration of all activities for each day of the season. Moreover, to highlight

her common, everyday behaviours as well as those reflecting more nuanced practice, totals, percentages, standard deviation, rate per minute and rank were calculated for each behavioural category and in relation to each activity and sub-activity type of the RCABI. Percentages are recommended and widely used in recent research (e.g., Potrac *et al.*, 2002; Smith and Cushion, 2006; Potrac *et al.*, 2007; Partington and Cushion, 2013) as a more reliable variable than frequency data, which could vary in relation to the duration of each training session or match (Ford *et al.*, 2010). However, use of a name, by its nature, always accompanied other behaviours and would have distorted the true percentages of behavioural categories if included in the overall calculations (Lacy and Darst, 1989). Consequently, use of name was excluded from the overall calculations, but divided by the total number of independent behaviours to give the percentage of behaviours accompanied by the use of name.

3.3.2: QUALITATIVE DATA ANALYSIS

The analysis of qualitative data drew upon the concepts of grounded theory (Glaser and Strauss, 2009). Grounded theory is particularly suited to study the complex and holistic coaching process because it focuses upon the subjective meanings derived from a person's experiences and how these guide practice (Tesch, 1990). Indeed, the present study follows other coaching research that has utilised a similar approach (e.g., Côté *et al.*, 1995c; Bringer, Brackenridge and Johnston, 2006; Groom *et al.*, 2011). The function of grounded theory is to develop theory *grounded* in the behaviours and experiences of the individual under study, rather than to test an existing theory or hypothesis (Côté *et al.*, 1995c).

Like most grounded theorists (Bryman, 2012), I did not rigidly follow the analytical steps originally detailed by Glaser and Strauss (1967). This was because Glaser and Strauss (1967) paid insufficient attention to the role of the researcher and their unavoidably subjective perspectives in constructing and analysing data, and thus a failure to address the question of reflexivity (Charmaz, 2008). Instead, I adopted a few common strategies, outlined below, to focus my data gathering and analysis (Charmaz, 2008). Grounded theory is characterised by the continual interplay between data collection and analysis, through an iterative process of

identifying and refining categories and concepts (Strauss and Corbin, 2008). As Weed (2009) succinctly explained, “Data is collected, analysed and compared with the literature, following which further data is collected to help refine concepts, which is then analysed and compared with the literature and original concepts...” (p.505) and so on. The iterative processes of grounded theory culminate in a grounded theory, which is an abstract theoretical understanding of the studied experience (Charmaz, 2006). In the coaching field, these abstracted understandings have typically been rendered into conceptual models or schematics (e.g., Côté *et al.*, 1995c; Groom *et al.*, 2011), around which move vivid descriptions of the components and their conceptual relationships can then be given.

The present analysis included inductive and deductive processes of organising and interpreting the data. Although there have been misinterpretations that grounded theory is a purely inductive process (Berg, 2000), Strauss (1987) confirmed that deductive reasoning is also important and can be used in combination with inductive analysis. Examples of this combined approach, sometimes referred to as abductive analysis, can be found elsewhere in the coaching literature (e.g., Nelson and Cushion, 2006; Martindale, Collins and Abraham, 2007). Abductive analysis involves the continuous movement between data collection, reflecting upon observations and experiences, and considering them in relation to theoretical concepts. Therefore, the processes of data collection and analysis in the present research were simultaneous and inextricably linked throughout its longitudinal duration. Importantly, this on-going, iterative process allowed new and emergent questions to be addressed in the field, and for Karen to comment on the developing analysis through member checks (LeCompte and Schensul, 2010).

The iterative process included frequently reviewing and rereading interview transcripts and fieldnotes to ensure my familiarity with the data (Strauss and Corbin, 2008; Glaser and Strauss, 2009). Initially, the qualitative data were manually broken down or coded into meaningful units, which were segments of text containing “one idea, episode or piece of information” (Tesch, 1990 p.116). *In vivo* coding, where the wording of the respondent is maintained in the form of the code, was used as much as possible (Strauss and Corbin, 2008). For example, the code “making assistant

coaches feel valued” was given to the following passage from an interview transcript:

“... I am absolutely open to them (assistant coaches) feeding in their ideas and I think that makes them feel valued and makes them feel part of an integrated team; as opposed to an assistant with a capital A and very much on the sidelines, on the wings.” (Interview 1)

Written memos were made during coding, acknowledging relationships, patterns and comparisons between codes, and enabling me to integrate personal insights and thoughts (Charmaz and Mitchell, 2001). In relation to the on-going data collection, these memos acted as prompts, earmarking things to be aware of in the field (e.g., how does Karen actually react when the assistants present different ideas?), as well as informing future interview topics.

Categories and subcategories were formed from groups of codes with similar meanings, and each one was named according to an abstracted concept that captured the substance of the group (Miles and Huberman, 1994). For example, “making assistant coaches feel valued” and “being accessible and listening to players” were grouped under the subcategory “meeting associate needs”, which itself related to the broader category “associate factors”. As new data were continuously being added and coded, categories and subcategories remained flexible to allow for modification and refinement (Tesch, 1990). Moreover, through the constant comparative method (Glaser and Strauss, 2009), relationships, similarities and differences between new data and existing data, codes, subcategories and categories were identified. Constant comparison involved comparing newly collected data to the previous data, codes, subcategories and categories in order to enhance, refine or discount the existing analysis (Glaser, 1965). As some of the interviews conducted during the course of the research were collaboratively reflexive, different colours were used during coding to differentiate between Karen’s perspectives and my own. Deductive analysis was also progressively introduced into the iterative process. This began by comparing codes, subcategories and categories to concepts from the coaching process literature (e.g., coach learning, coaching philosophy, coaching roles etc.), which led to the more focused collection of further data (Weed, 2009).

By the end of my time in the field theoretical saturation had been reached in that new data produced no new information and fitted adequately into the existing system of codes, subcategories, categories and concepts (Glaser and Strauss, 2009).

This system of themes was then reassembled into a grounded model of the coaching process (*Figure 3.0*). As Milliken and Schreiber (2001) explain the purpose of grounded theory is to, “construct a model to explain the action and interaction surrounding the phenomenon of interest” (p. 179). The grounded model therefore represents the relationships between the categories and subcategories of the coaching process, and their dimensions, conditions, actions, interactions and consequences (Strauss and Corbin, 1998). For example, unlike the Coaching Model (Côté et al., 1995c), the present study’s coach and associates were identified as being part of the coaching context – they were therefore represented inside a box showing the coaching context within the grounded model. Furthermore, the highest order themes from the analysis are presented in larger, capitalised and bold text; while the lower-order themes are shown in smaller, lower case and normal text. Arrows are used to show the bi-directional influence of each major theme cluster on the others.

The grounded model was developed as a heuristic tool to help communicate the interrelated complexity of the findings. Indeed, the grounded model, in accordance with the pragmatism of John Dewey’s view of theories, is more a useful set of tools than a theory *per se* (Bryant, 2013). As a useful set of tools, in the context of this thesis, the purpose of the grounded model (*Figure 3.0*) is to help readers, as they progress through *Chapters 4, 5 and 6*, to understand the contribution, relationships and actions of each theme being discussed to the comprehensive, integrated and situated coaching process. Therefore, the grounded model is intended to communicate the interrelated and interdependent nature of the findings when a written thesis demands that information is, to some degree, presented in a more linear and isolated way.

3.3.3: REFLECTIONS ON RESEARCH QUALITY

Quality matters in all forms of research including this mixed methods but predominantly qualitative study of the coaching process (Seale, 1999). Accordingly, rigorous processes to determine the validity and reliability of the RCABI were detailed in sections *3.2.3: Systematic Practice Observation* and *3.2.3.1: Limitations and Analysis of RCABI Data*. However, validity and reliability criteria used to judge quantitative research are inappropriate for judging qualitative research, being derived

from different ontological and epistemological assumptions (Smith, Sparkes and Caddick, 2014). Given these different assumptions, “it makes little sense to impose the criteria used to pass judgement on one upon the other” (Sparkes, 2000 p.29).

Within sport research, Lincoln and Guba’s (1985) parallel criteria have been widely cited for judging the quality of qualitative research (Smith *et al.*, 2014). Lincoln and Guba (1985) highlighted criteria such as credibility (contributing to trustworthiness), which can be compared directly to notions validity in quantitative criteria (Smith *et al.*, 2014). However, these qualitative criteria have also attracted criticism for being founded upon incompatible assumptions (e.g., Sparkes, 1998; Sparkes and Smith, 2009). For instance, the notion of credibility, which Lincoln and Guba (1985) argued should be in part derived from member checking, rested upon positivistic assumptions about the participant’s perceived privileged possession of the “truth”. Yet, Lincoln and Guba (1985) simultaneously argued that the naturalistic researcher will assume there are multiple constructed realities. According to this perspective no absolute “truth” can ever be arrived at (Seale, 1999). Obviously, these two positions are irreconcilable, meaning more relevant criteria to the constructivist-interpretive and predominantly qualitative paradigm of the present work were required.

Rather than beginning with the objectives of validity and reliability or Lincoln and Guba’s (1985) parallel positions, I followed Sparkes’ (1998; 2002) recommendations to “let go” of such traditional criteria. However, far from then adopting a position of “anything goes”, I still pursued a purposeful, contextual and plausible study (Sparkes, 1998). Indeed, the criteria adopted were more a set of guiding principles for the ongoing dialogue characteristic of ethnographic research than a series of rules or standards for it to be judged against, as in positivist studies (Giacobbi, Poczwadowski and Hager, 2005). Firstly, I attempted to be methodologically transparent (Smith *et al.*, 2014) and sincere (Tracy, 2010). This included the continuous reflexive “auditing” of methods, such that the vulnerabilities, challenges and decisions of this research, its course of development, could be honestly recorded in this chapter and in *Chapter 6, The Coaching Process and the Research Process: A Collaborative, Reflexive Relationship*. For example, the revision of a planned interview into an initial questionnaire was described in

3.2.2:*Semi-structured Interviews*. Moreover, as Leary, Minichello and Kottler (2010) similarly noted, conversations with critical friends including my doctoral supervisors, expert peers and colleagues from other fields exposed my interpretations to challenge, suggestion and critique. Importantly, these interactions encouraged further reflection and the consideration of alternative explanations and interpretations of the data (Smith *et al.*, 2014).

Another factor in attempting to be transparent, and also in consideration of the credibility of the analysis (Patton, 2002), was the use of member checks. Like Groom *et al.* (2011) and Holt and Dunn (2004), at various points throughout the research, Karen was asked to comment on the developing analysis. During these interactions, Karen and I engaged in lively discussions on the accuracy of transcripts, the attribution of codes, and the relative significance of categories. However, member checks were not carried out in search of a verified “truth”, but in order to extend and enrich the ongoing analysis and interpretation of data (Sparkes, 1992). As such, for Karen and I member checking was a process of openly debating our interdependent relations in the field (Williams and Brydon-Miller, 2004), which stimulated further reflexive elaboration on the co-construction of the research findings (Bloor, 1997). This approach extends the traditional uses of member checking in existing empirical sports research (Culver, Gilbert and Sparkes, 2012).

The coherence of this research was also important. Reflecting Tracy’s (2010) consideration of coherence, efforts have been made to demonstrate the interconnection of this work’s objectives, research design, data collection and analysis. For example, Tracy (2010) emphasised the need for those borrowing from grounded theory but aligned to a postmodern philosophy to clearly express how they have intentionally woven these two approaches together. Here, section 3.3.2: *Qualitative Data Analysis* deals with this exact point, outlining my selective use of grounded theory strategies whilst acknowledging the limits of a rigid adherence to Glaser and Strauss’s (1967) original analytical steps. However, as Tracy (2010) also noted, the notion of coherence should not preclude complexity. Indeed, as an ethnographer I have aimed to develop a thesis rooted in the complexities of and deep engagement with Karen’s everyday practices, such that her world resonates with the reader (Bryant, 2013). Relatedly, Willig (2008) suggested that coherent analysis can

be presented using models or frameworks to aid understanding of the whole while preserving the nuances and complexity of the data in a richly detailed accompanying narrative. Hence, the grounded model of the coaching process developed during this analysis is presented in *Figure 3.0* at the beginning *Chapter 4*, which is followed by vivid examples and explanations of the complexity of coaching practice throughout the rest of the thesis. In further pursuing coherence, these findings are also examined in the light of their congruence and incongruence with existing theories and previous research (Smith *et al.*, 2014).

Further concern for the coherence of this work corresponds to Smith *et al.*'s (2014) notion of width from their criteria for judging the quality of qualitative research. Width refers to the scope and quality of evidence provided in a thesis, which can include quotations, fieldnotes and other data in order to allow the reader to make their own judgments and interpretations. I have attempted to write as much of the original data into the text as possible, though it is impossible to make explicit all the data gathered during my fieldwork (Hammersley and Atkinson, 2007). I have been conscious to convey a variety of situations, moods, feelings and language, such that the reader gains, "a heightened sensitivity to the lives being depicted and... [a] flavor [sic] of the kind of events, characters and social circumstances that circumscribed those lives" (Sparkes, 1998 p.379). By these means the reader might also come to identify with Karen's and my experiences, or at least empathise with us. Indeed, it is important that the text resonates with the reader (Smith *et al.*, 2014), not simply in the sense of achieving compatibility with the reader's own experiences, but by arousing their interest in the topics of this thesis through evocative representation (Richardson, 2000). In short, the presentation of findings that follows is intended to encourage the reader to feel, think and react, as Karen and I did during our time together.

WHO, WHEN AND WHERE: THE COACHING CONTEXT

4.1: INTRODUCTION

Before any interpretation of Karen's coaching practice can take place it is necessary to first understand, as much as is ever possible (Sparkes, 1995), the peculiarities and intricacies of the people and places that comprised the coaching context (Jones and Wallace, 2005). Therefore, the purpose of this chapter is to contribute to a vivid picture of the coaching process by reporting the broader features of Karen's lifeworld (Strean, 1998). It is hoped that by describing and analysing the complex reality in which Karen worked this chapter will establish an initial understanding of the multifarious factors that influenced her practice (Côté *et al.*, 1995c; Strean, 1998). Thus, within the overall structure of the thesis, this chapter is located in advance of Chapter 5, such that the reader's subsequent understanding of the *what*, *how* and *why* of coaching practice are grounded in an appreciation of the *who*, *when* and *where* underpinning them.

As part of the more encompassing and holistic picture of the situated coaching process intended of this thesis, to be understood as a whole, but necessarily divided in order to aid clarity and comprehensive explanation, this chapter should make a contribution to the reader's understanding of: (a) Karen's personal background, role, philosophy and social relationships; (b) the characteristics of the coaching context and situation-specific issues she faced; and (c) the experience and knowledge brought-to-bear in practice for Karen to navigate her way through the coaching process.

4.2: A GROUNDED MODEL OF THE COACHING PROCESS

Three fundamental constituents interacted to form the coaching process under study: the coach, associates and the coaching context. It was from these interactions that coaching practice was produced. A grounded model of the coaching process representing these components, their properties and relationships is presented in *Figure 3.0*. While others (e.g., Côté *et al.*, 1995c; Abraham *et al.*, 2006) have

developed models as part of a search for the universals of sport coaching, the present grounded model is simply a heuristic device that helps to characterise the phenomena in this individual case. That is to say, it is a conceptual metaphor to aid the thorough description and explanation of Karen's coaching process and coaching practice. Thus, the model provides a framework for the structured presentation and elaboration of themes developed during analysis in the remainder of this thesis.

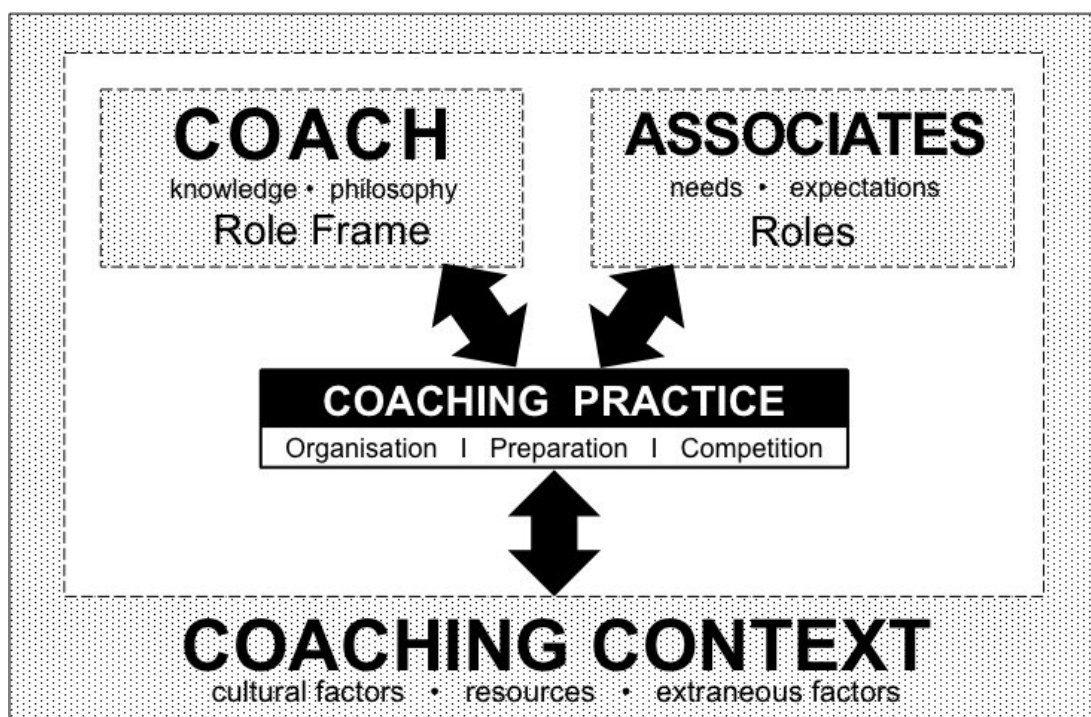


Figure 3.0 Grounded model of the coaching process.

The grounded model bears some important similarities to the Coaching Model by Côté *et al.* (1995c, see 2.1.1: *The Coaching Model*). Notably, the coaching process was found to be constituted by the triumvirate interactions of the same three core features: personal factors, related to the coach; social factors, related to Karen's relationships with an array of associates; and the coaching context, comprising the contextual circumstances of the coaching process. However, there are also important differences. Most significantly, where Côté *et al.* (1995c) highlighted the primary relationship between coach and athletes at the exclusion of others, the present model recognises numerous associates with whom Karen maintained relationships. Her principle association was with her players, but this also included assistant coaches,

medical staff and others. Moreover, echoing the findings of Groom *et al.* (2011), the coaching context, rather than being a process feature of the model, instead framed Karen's practice. That is, the coach, associates and their interactions were part of and shaped by the social arena or "field" (i.e., the coaching context; Bourdieu and Wacquant, 1992). Simultaneously, their social practice also shaped the coaching context. Furthermore, three similar settings were identified in which coaching practice occurred: organisation, preparation and competition. Yet, where the "training" component of Côté *et al.*'s (1995c) conceptualisation suggests a very traditional image of "on-field", instructive skill development, the present model identifies other scenarios in which Karen practiced. For example, the preparation setting included video analysis sessions and one-to-one meetings with players. In the following sections, each major component of the grounded model is explored through detailed descriptions and analysis of their properties and relationships in the light of existing research, which are further illustrated by vignettes from the field and excerpts from the analysed data.

4.3: THE COACH

4.3.1: THE COACH'S BACKGROUND

The first of the three major components of the coaching process was the coach. Karen's role was paid but part-time, contracting her to be available for training weekends, matches, meetings, media engagements and other related activities, which she did alongside her "day job". Aged 44 at the beginning of the study, Karen had risen to the top of her profession in a national, public-sector organisation. Karen emphasised the pressurised, high-level nature of her daily working environment, as well as its similarity in scope to the role of Scotland Women head coach:

"I look at a national picture on a day-to-day basis. It's never just about me and my team, it's about impacting the organisation, impacting the national organisation, it goes on and on and it's the same here in Scotland Women."
(Interview 1)

As will be shown, balancing her working and coaching commitments was a key challenge, and one she shared with many of the other staff and players. Like a number of current Scotland Women players, Karen's job had taken her to live away from Scotland during her playing career. Having moved to England, she became heavily involved in their top-level club rugby, which was administered by the Rugby

Football Union (RFU). Interestingly, the RFU is also governing body of the England Women's team, a key rival to Scotland Women in the Six Nations Championship. Despite this, Karen was coaching a top-level England club side, Richmond RFC, throughout her time as Scotland Women's head coach.

Karen's association with Scotland Women began as a player, representing her country 85 times and spending six years as captain. Karen's tenure as captain was a particularly successful one in the history of Scotland Women, winning the Six Nations Championship and the now defunct Continental Cup for the first times. At club level Karen played for Richmond RFC who competed in the top tier of the RFU's domestic club leagues. With Karen as captain, her club side was also successful, winning the domestic league and cup twice before she retired from first-team rugby in 2006. Karen's transition to coaching began at the same club, combining playing and coaching during her last seasons in the Richmond first team. Initially, she took responsibility for coaching the forwards and was subsequently appointed to the role of head coach in 2007. Reflecting her achievements as a player, Richmond enjoyed success with Karen as head coach, either winning or finishing second in the domestic league on five successive occasions and capturing a number of other competitive trophies. Aside from these roles with Richmond, Karen gained further coaching experience as an assistant and head coach of various representative teams and more social, invitational sides. Collectively, Karen had eight years of coaching experience at the beginning of this study. In addition, she held a number of formal coaching qualifications, which included completing the United Kingdom Coaching Certificate (UKCC) Level Three during the course of this study.

Like many coaches (Lemyre *et al.*, 2007), Karen began working with Scotland Women as an assistant coach, taking specific responsibility for the forwards during the 2010/2011 season. When the incumbent head coach stepped down less than a year later, Karen applied for the role, believing her collective experiences to be a "practical apprenticeship", which gave her "credibility" as a coach based on more than just her achievements as a player. Indeed, given her success as a player and as a club coach, Karen joined Scotland Women with certain cultural, social and symbolic capital (Bourdieu, 1989), that is professional credentials, connections and prestige already cultivated in these closely related fields (Cushion and Jones, 2006).

In reporting Karen's appointment, the media summed up this capital, heralding her as "high profile", "highly experienced" and "a leading coach". Karen's appointment as Scotland Women head coach came partway through the 2010/2011 season, around six months prior to the commencement of this study and at a time of limited success for the team.

4.3.2: THE COACH'S ROLE FRAME

The coach's role frame describes how Karen defined the responsibilities, tasks and actions expected of her. In other words, the role frame encapsulated Karen's perceptions of the practice she should undertake as head coach and served as a perceptual filter to comprehend her social position and relations within the coaching context. Thus, the practical application of Karen's role frame echoes Gilbert and Trudel's (2004b) findings in as much as it was an integrative framework to guide her practice in the social and practical domains of the coaching process. However, where Gilbert and Trudel (2004b) emphasised the agency or free will of the coach in "constructing" their role frame, Karen's perceptions were also socialised through various interactions, as well as in relation to a variety of contextual factors. Moreover, where previous studies (e.g., Wilcox and Trudel, 1998; Gilbert and Trudel, 2004b; Nash *et al.*, 2008) have tended to report the coach's role in terms of their interactions with athletes (players) alone, the present research found the head coach considered their role frame in relation to a broader range of associates.

Given the complex origins of Karen's role frame, it is impossible to produce an exhaustive model of every nuanced objective, interaction, activity or task within the coaching process (Gilbert and Trudel, 2004b). Instead, this section and those that follow present a selection of examples from the empirical data to communicate the abstracted concepts and their constitution in the interplay of coach, associates and context. Karen's role frame is principally explored in relation to the interrelated ideas of role theory and social influence, which have been highlighted for their potential to reveal, "key, but often underplayed, components of the coaching process" (Jones *et al.*, 2002 p.35). Consequently, the present discussion serves to deepen our understanding of the coaching role as a complex, sophisticated and negotiated

phenomenon (Potrac and Jones, 2009b), as well as to elucidate some of its more practical properties.

At one level, Karen's role was located within the structured hierarchy of the coaching context, which included people with more and less capital and power than others (Jarvie and Maguire, 1994). As head coach, Karen held a position of precedence beyond any other individual in shaping the form and function of the coaching process. This social influence was most evident relative to her associates in their shared day-to-day activities. For example, Karen held the roles of convener and chair of player and staff meetings, setting agendas and assigning responsibilities to people when actions were required. She was also the public face of Scotland Women in the media, providing opinion or comment in most of the stories written about the team. Moreover, by having the final say on the selection of players for the squad and by contributing to decisions regarding the appointment of assistant and specialist coaches, Karen directly influenced who would be her associates in the coaching process.

These examples suggest that, as with most coaches, Karen's position afforded her a degree of legitimate power (Jones *et al.*, 2002). According to Raven's (1983) six-part taxonomy of social influence, which borrows from the work of Weber (1947), legitimate power is derived from a person's hierarchical position within a social field. The legitimacy of this power arises from the subordinate's (e.g., assistant coaches and players') acceptance of the superior's (head coach) right to social influence, which is indicative of the culturally established norms of the social field (Raven, 2008). In other words, as Bourdieu argued of power relations, legitimacy is established in the eyes of the beholder (Bourdieu and Passeron, 1990). Thus, players and assistant coaches are traditionally subordinate to the head coach, who, in relation to the function of their role, is able to make various demands and decisions that their associates are obligated to obey (e.g., selecting the squad; Turman, 2006; Purdy, Potrac and Jones, 2008).

Karen's legitimate power within the coaching process was, in a formal sense, sanctioned by her employer, the SRU. Her formal responsibilities, as with each of the staff, were described in an SRU document (see Appendix 1.0) and included:

- Game plan/strategy delivery
- Forwards set piece
- Devise performance plan with performance manager
- Oversee sessional planning and content delivery
- Selection feedback
- Aims for matches / key performance indicators
- Player feedback / profiling / action plans
- Player discipline / welfare
- Team culture / values

Such diverse responsibilities indicate the multifaceted and complex nature of the coaching role (Jones, 2007). Indeed, Karen's formal responsibilities ranged from the micro-level (e.g., providing individualised feedback to players following selection) to much larger issues including the women's performance plan, which involved rationalising the relationship between the senior Scotland Women, junior national squads and top-level club sides. Accompanying these explicit responsibilities, Karen was also aware that she would be held accountable for the performance of the team, and more specifically, for them achieving their unequivocal goal, to qualify for the next World Cup. Demonstrating an awareness of her legitimate power, Karen neatly summarised her hierarchical position and responsibilities in relation to the team's goal stating in the following terms: "the buck stops with me" (Interview 1).

Throughout the research process, many of Karen's day-to-day tasks and activities were found to relate directly to the formal responsibilities stipulated by the SRU. However, Karen also carried out other tasks and activities seemingly understood to be "part of the job" but not specifically detailed in her formal roles and responsibilities. Reflecting upon this, Karen felt that, in reality, her role extended far beyond the areas listed by the SRU:

"...those bullet points go nowhere near conveying what my role involves... Then there is the reality: doing whatever needs doing to make this environment better for our players and making our players better." (Questionnaire)

This point reveals much of the complexity inherent in Karen's role frame. Rather than just adhering to a succinct job description, the authority afforded to the head coach brought with it a license for Karen to shape the nature and extent of her own work. However, what also became clear during the course of study was that, rather than simply dictating this exclusively on her own terms, Karen's role frame was shaped by her associates' needs and expectations. Thus, Karen came to understand her role through the interplay of personal and social factors within the coaching

context, which supports Potrac and Jones's (2009b) portrayal of the coaching role as a negotiated phenomenon. Karen, herself, elucidated this point in response to the question, "who decides what your role involves?":

"My players...they are the most important. What I do is firmly centred on what they need, how I can best create the most suitable environment in which they can achieve, succeed and develop. My coaching and management team...again, what I can do to make us better, to enable us to develop and be the best team we can be. And me...I have a huge sense of pride in what I do, and that can, on occasion, mean I will go the extra yard when maybe I shouldn't be doing it...but rather that way than sitting thinking about what I could have done." (Questionnaire)

It is notable in the previous quote that Karen incorporated perceptions of her players' needs into her day-to-day activities as head coach. For example, she responded to the perceived need for consistency in the team's game plan:

"...in terms of our game plan, I've committed...we're not going to chop and change it. We're going to keep it going for two, three seasons... and the players are crying out for some consistency in terms of the coaching, you know, the actual game-plan. Because of the newness of the side, that's one of the most important things in terms of their needs at the moment." (Interview 2)

Karen's attention to the players' needs was also evident in her differentiated behaviours towards individuals. For example, during a half-time talk, for one player, Karen offered a calm appraisal of improvements that could be made to a technique; whilst for another, she delivered an impassioned speech, demanding increased effort. Describing her differentiated approach, Karen felt that different players needed different things from her at different times:

"Coach, mentor, good listener, support and parent when they need advised they aren't doing things in the right way....sometimes one of these at one time, sometimes a combination." (Questionnaire)

Karen's understanding of individual and collective needs emerged from the varied relationships she maintained with each player, which she acknowledged sometimes meant that she would not always take an active role in responding to everyone. Indeed, the following examples highlight how social and contextual factors, specifically the players' relationships with Karen and the assistant coaches (human resources) shaped her practice towards different players:

"You're not going to have the same relationship with the players. As long as every player knows that you are there and you will listen, and that you are absolutely accessible to them." (Interview 1)

"Actually, it's not just about me knowing... there will be players in the team who will better respond to [the assistant coaches] because of their age or because...

whatever it is, and I'm ok with that. As long as that information is fed into me and I know what is going on with that individual, then we'll work through that.”
(Interview 1)

As a perceptual filter between thought and action (Gilbert and Trudel, 2004b), Karen's role frame was a guide within the social context of the coaching process to the practice she carried out, as well as that she chose not to. The examples included reinforce Saury and Durand's (1998) point that the task of the coach is not something that can be totally defined in advance. As such, flexible applied coaching practice was a key requirement in Karen's coaching process, enabling her to respond to the dynamic circumstances of the coaching context and to her evolving understanding of associate needs (Jones and Wallace, 2006). Moreover, this finding bolsters Saury and Durand's (1998) suggestion that all coaches deal with dynamic circumstances and therefore their activity will necessarily be “highly adaptive in nature, and their planning [will be] very flexible and based on continuous, step-by-step tuning to the context” (p. 265).

Research has typically emphasised the centrality of the coach's relationships with their players (e.g., Côté *et al.*, 1995c; Jowett and Timson-Katchis, 2005); yet, Karen's role also included significant interpersonal relationships with a host of other associates. Although Karen's interactions with her associates are more specifically discussed in 4.3.2: *Associates*, her role frame was shaped by her understanding of assistant coaches' needs. For example, while an experienced assistant coach was leading warm up activities or other drills, Karen would often busy herself pumping up balls and setting out his cones, keeping out of his way. Here Karen saw her role as standing back to allow him to coach. In contrast, she responded to another assistant's relative inexperience by talking through his session plans at length and reassuring him about his ideas. In this instance she performed the role of an informal mentor (Jones *et al.*, 2009). Similarly, Karen deliberately tried to position herself next to one of the specialist coaches during his first day with the team. This enabled her to respond to his needs by reminding him of players' names in order for him to provide specific feedback, which, she explained, also encouraged him to “get involved” in coaching rather than just observe training (Interview 3).

Karen's integration of varied associate needs and more formal expectations portrays the contribution of social structure to the development of her role frame,

which reflects traditional perspectives in the theorising of social roles (e.g., Linton, 1936; Parsons, 1951). Collectively, these perspectives emphasise the forces of social structure in determining the practice of a role incumbent, which in Karen's case were principally encountered through her interactions with the SRU, her players and assistant coaches. Consequently, it might be perceived that Karen was playing a role, merely meeting the demands of her associates and the coaching context (Raffel, 1999). However, Karen's subjective inclination or agency was also evident in the role frame. Specifically, agency was noticeable in two ways: the way in which Karen incorporated her philosophy and knowledge into the coaching process, and the way in which she rejected or distanced herself from the expectations of others.

Karen was formally responsible for delivering the team's game plan and strategy; however, rather than dictating every play that was made, Karen's philosophy of player empowerment meant that players actively contributed to the team's strategy. Karen described her decision to involve the players in developing a game plan, identifying the positive role she felt she had played in empowering the players:

"It's very much about engaging our players and them having ownership, creating an environment in which they are happy to ask questions of themselves, ask questions of each other, ask questions of the coaching team. Just create the right environment where learning and development is constantly progressing us and moving us forward." (Interview 1)

"I look at where we were ten months ago, where we're like twenty two individuals that wouldn't have even been able to describe a game plan to you; into a room with twenty two individuals all contributing, and them telling me the answers. I'm now writing their game plan [on the board], that they own and they make decisions about. And they need to understand [it], because it's them that have got to implement it". (Interview 1)

Moreover, Karen's knowledge of how a previous head coach interacted with their assistants had clearly shaped her decision to more fully involve assistant coaches in the coaching process. She explained:

"... I am absolutely open to them (assistant coaches) feeding in their ideas and I think that makes them feel valued and makes them feel part of an integrated team, as opposed to an assistant with a capital A and very much on the side lines, on the wings. They're very much involved and I think that's really been important because I think in [the past], there's very much been a *head coach* that's led absolutely everything and the assistant coach hasn't been hugely involved." (Interview 1, original emphasis)

Although Karen's assertion here that players and assistants were heavily involved in contributing to the coaching process was supported by some participant observations,

the equity of empowerment across the 22 players and the assistants she mentioned was contradicted in others. For example, in *4.4.1: Associate Roles, Needs and Expectations* Karen is shown to value the contribution of some players in decision making roles more than others and she reserves the right to overrule her assistants in disputes over selection. Similarly, in *4.3.2.1: The Coach's Knowledge and Philosophy* it is noted that Karen saw the need to sometimes restrict player empowerment and instead make clear decisions as a head coach. These inconsistencies highlight subtleties in coaching practice so often overlooked by single-method research approaches.

Karen's agency was also evident in attempts to distance herself from the SRU's formal expectations, which was aimed at fostering greater collegiality with the players and assistant coaches. A prime example of this related to the Scotland Women's provision of kit by their sponsors. All of SRU's other representative teams followed protocols to ensure that certain clothing, carrying sponsors' logos, would be visible during training and matches. As head coach, Karen was formally responsible for the team's discipline in this regard. However, she distanced herself from any role in policing this policy, saying:

"I don't need to whack a stick, to say, 'No, you've got the wrong t-shirt on'. That's just... I'm not going to go there." (Interview 1)

Karen actively resisted the enforcement of kit policy, an action that can be understood in relation to Raven's (1983) concept of "coercive power". Coercive power involves using threats of undesirable consequences in order to promote compliance among subordinates. However, it has been suggested that the use of coercive power can create resentment and a lack of trust among recipients (Raven, 2008). Yet, according to the job description, Karen was expected to use coercive power to generate player discipline. In this instance though, she distanced herself from a formal role in order to build, she explained, more trusting relationships with the players.

Karen also distanced herself from the explicit expectations of some SRU employees by encouraging the team to play a more expansive but challenging form of "backs-oriented rugby". Her vision was in stark contrast to previous years, where "forwards-dominated rugby" meant that the ball was rarely passed beyond the fly half. Indeed, her new vision for the team's playing style was directly challenged in a

heated meeting with the SRU head of coach development on Training Day 7 (TD7), who did not perceive the players to be capable of achieving Karen's aims. Karen reflected upon her commitment to playing an expansive game and the rejection of divisive expectations during several interviews:

"Some people have gone, 'Oh my god, that's high risk, because you could be playing ten-man [sic] rugby and probably [be] quite successful at it'. Well you can, but it's never gunna win you major honours and it's just limited, it's already limiting our players." (Interview 1)

Karen's actions in this regard can be explained by role distance (Goffman, 1969), which helps to further locate the contribution of agency in the development of her role frame. By distancing herself from some aspects of her formal responsibilities, or as Goffman (1969) put it, by choosing not to "press [her] rightful claims too far" (p.75), Karen tried to manage the micro-relations of her coaching context in search of more favourable return from her closest associates. As Potrac *et al.* (2009b) suggested, Karen's actions in these examples were political in that they were intended to "generate the necessary professional support, space, and time to carry out [her] programs [sic] and agendas" (p.224). Indeed, given her desire to radically change the team's tactical approach, Karen frequently talked about gaining "buy in" and "unity" among her closest associates. Summarising this point, Karen referred to the importance, therefore, of the assistant coaches feeling an active part of the coaching process:

"... people do have the confidence to take an idea to the table, and if it's a good idea at the table and I can see it's a good idea then we will go with it. I think that means that you create buy in. It's really important. I am only as good as my coaching team around me, and there's a huge element of trust goes with that." (Interview 1)

The final major property identified in Karen's role frame was the importance of planning the coaching process. Planning was a means of organising and giving direction to the coaching process, which Karen felt was the core of the head coach's role:

"[if I did not plan], I think it would be totally disrespectful in terms of the ethos of being a head coach. I think it is all about the planning... it's the ninety percent of the bit that nobody sees." (Interview 19)

At a personal level, Karen's emphasis on organising and giving structure to the coaching process seems unsurprising given the scope of her responsibilities. Yet, planning also served as a catalyst for interaction between Karen and her assistant

coaches during planning meetings, which were convened to ensure that everyone was working towards common goals and a shared understanding. Thus, planning formed part of one of the three main settings of Karen's coaching process, "organisation". Like legendary basketball coach, John Wooden (Gallimore and Tharp, 2004), Karen's level of planning was compulsive and extremely detailed, and the number of staff meetings held to go through plans was the source of a running joke between her and the assistant coaches, as the following extract from my fieldnotes highlights:

"The meeting tonight started at 6pm and went on until after 10pm. Every time the coaches meet up for a practice weekend, these sort of meetings seem necessary to refine not just what they are doing as a whole, but also *how* they are doing it. Meetings are the place to check that each person shares a central focus and a common direction. For example, Karen, [and the assistants] outlined a feedback plan for the Six Nations Championship. This includes who will do what, what the players need [and] what the staff have time to do etc. Karen tasked [one assistant] with looking at the Six Nations schedule, in order to decide what kind of feedback will be given between games. Specifically, will they have time to give written and verbal feedback or just verbal feedback to each individual between back-to-back games? Karen also suggests time targets for each coach to collate individual player feedback (Karen: front-five players and replacements, [Assistant One]: mid-five players and replacements, [Assistant Two]: back-five players and replacements), to share this between the coaching group and then to distribute it to players. The coaches also discuss tomorrow's session plan. Specifically, [they] ask questions to check that their plans match Karen's philosophy, with her having final say on what will be included. They often use phrases like, 'How do you feel about this drill...'. It's a knowledge sharing exercise that tries to ensure that they are all singing from the same hymn sheet." (Fieldnotes, TD2, original emphasis)

Karen's volume of planning epitomised the managerial functions long associated with the coaching role. Indeed, her planning included the processes of scheduling and organising, as well as considering the budget (Chelladurai and Saleh, 1980). This emphasised her role, in Jones and Wallace's (2006) terms, as an orchestrator, overseeing all aspects of the coaching process, but without necessarily engaging in the direct coaching of players. Reflecting upon this point, Karen explained:

"Often it is about people management as opposed to actual genuine coaching, as a head coach. And very much about me getting the environment right for the coaching team and the players." (Interview 18)

"My perception of the role... a successful team and a successful leader, for me, is... yes you've got to have something about you that'll make a decision when maybe one of the others will walk a step away from the plate, but it's also about sussing out what the landscape is, sussing out what makes success. Then, you know, leading by example yourself. Without a shadow of a doubt... making decisions, but it's also about the engagement you have with that team around you and delegating responsibility, and valuing their contribution. They're all things that sometimes I don't think a lot of people think about because they're

so busy being a coach – small coach word as opposed to head coach word – that they don't necessarily realise that, actually, the role of the head coach, for me, is massively about creating the right environment to succeed.” (Interview 19)

In this regard, Karen's priorities within the coaching context contrasted with the emphasis placed on practical delivery in the roles of her assistant coaches, which is analogous to the differentiation between manager and coach roles in English soccer (Jones *et al.*, 2003). However, it should be noted that Karen still engaged in a significant amount of on-pitch coaching practice (see *Chapter 5*).

Given her broad oversight, in order to “get the environment right” (Interview 18), Karen planned aspects of the coaching process beyond the coach's typically acknowledged control over training loads and intensities (Lyle, 2010). For example, Karen acknowledged:

“I do consider every pass we make, every training session we do. Every decision we make matters, everything that we do matters... I am an absolute stickler for attention to detail.” (Interview 1)

Indicative of this attention to detail, daily itineraries were produced in conjunction with the team manager and other staff, which involved the detailed consideration of diverse aspects of the players' time in the coaching context. For example, Karen considered what time breakfast was served at the team hotel each morning, to ensure players had sufficient sleep, and what time the team bus departed for a match venue, to ensure players were not rushed in getting ready nor had excess time to worry about the match upon arrival. Time for social activities, compulsory rest, team meetings, video analysis, medical monitoring, and talks by visiting specialists such as nutritionist and match officials were also planned in detail. Moreover, Karen's plans for match days detailed timings of warm up segments and provisional substitutions; and training session plans included timings, descriptions of activities, details of player groups and coaching responsibilities, intended aims and objectives of each activity, and relevant notes. These notes variably included reminders of key terminology to be utilised by the coaches, the names of players who should be the focus of observation or support, and specific tactical considerations related to individual player's strengths or weaknesses. On a broader scale, there were meso- and macro-level plans for the progressive development of players' key skills during different phases of the season, as well as across future seasons in preparation for the

World Cup. In fact, Karen considered almost every second of the Scotland Women's time together.

Karen's planning and its influence over the movements and activities of her associates can be considered to be an attribute of the head coach's legitimate power (Raven, 1983). However, Karen's plans also referred to times when the assistants or a specialist coach would lead training sessions, enabling them to choose the drills or activities, and allowing Karen to take more of an onlooker role. In this way, Karen shared power with her assistant coaches. Yet, rather than diminish her own authority as the head coach, Karen's approach seemed to reinforce her status. The assistants were allowed to take charge, but only because Karen ultimately had the power to grant this freedom. As Karen said herself, she was, "not precious about delegation", but at the same time, she set, "clear parameters" within which her assistant coaches should operate (Interview 2). At an individual level, Karen's distribution of power was indicative of "personal reward power" (Raven, 2008), the reversal of which (personal coercive power) she was also in a position to determine. Moreover, by freeing up time to be able to oversee the coaching process, Karen maintained a position of surveillance over her assistants, which Raven (2008) stated is necessary when managing reward and coercive power. However, considered in terms of the whole social network of the coaching process, this example is also characteristic of the ebb and flow of power within a system of distributed leadership (Gronn, 2000). Thus, the responsibility for different parts of the coaching process moved back and forth between Karen and her associates, with Karen relying upon but also shaping other people's positions of social influence (Jones and Standage, 2006). The notion of shared leadership is further discussed in 4.3.2: *Associates*.

Karen's use of certain bases of power more than others highlights the contribution of her agency to the production of her coaching role frame. Indeed, Raven (2008) points out that someone's inclinations towards different types of power will be shaped by their personality, experiences and values. However, Karen's role frame was also found to have been shaped by social structures including the SRU, associate needs and expectations, and contextual factors. In other words, Karen acted both as she chose and also as she was influenced to choose (Armour and Jones, 2000). This interplay of structure and agency was manifest in coaching practice; in

Karen's undertaking of formal responsibilities, but with explicit consideration for the needs of her associates and the legitimate authority she held in determining how to carry out the coaching role. By identifying these multiple forces at play, Karen's coaching role is understood not simply as something she performed or played, but a resource that she used (Callero, 1994). Indeed, Karen used her role frame to support the creative construction of her flexible actions as well as her understanding of the role's structural boundaries. Thus, the present findings make evident previous suggestions that roles are enabling rather than constraining (Jones *et al.*, 2002), and that a coach's actions are "simultaneously a result of social rules and of their own individual flourishes" (Lemert, 2012 p.42 cited in Cushion and Kitchen, 2011).

4.3.2.1: THE COACH'S KNOWLEDGE AND PHILOSOPHY

The previous section identified the importance of agency in defining how Karen undertook her role. For instance, Karen was individually responsible for delivering a game plan, but the approach she chose, based on her coaching philosophy, was to involve the players in its development rather than simply dictating how Scotland Women would play. In this section, Karen's coaching philosophy is explored in greater depth, in relation to the values and beliefs that underpinned her coaching practice, and to the origins of these values and beliefs in varied learning experiences (knowledge). Consequently, this section highlights part of the simultaneously personal and socially negotiated nature of Karen's role frame.

As elsewhere, the term coaching philosophy represented a set of personal values and guiding principles for how Karen undertook her coaching role in practice (Lyle, 2002b; Cassidy, Jones and Potrac, 2004). Indeed, Karen's coaching philosophy shaped her intentions in matters as diverse as designing training sessions and dealing with players. Summing up the importance and influence of her coaching philosophy, Karen stated: "It's almost like a little bible for me" (Interview 1). Perhaps as a result of its perceived importance, and akin to similarly qualified coaches in a recent study (Nash *et al.*, 2008), Karen's consideration of her coaching philosophy demonstrated conceptual awareness. Thus, she readily expressed her compound beliefs in the following terms:

"As a coach, I believe every decision, every action, every session is important to achieve individual and team success. It is essential to create a player-centred

environment in which players are encouraged to take ownership of their learning, and through adoption of a Game Sense approach, we increase their opportunities and strengthen their abilities to retain and improve on important skills and ideas. That way we ultimately enable them to become more effective decision makers during competition as well as nurturing key ingredients I believe are essential as core, shared values – honesty, work ethic, commitment to excellence, and an aspiration to continually develop – all of which contributes to the creation of a successful winning-team culture and enhanced individual and team performance. No player or coach can ever stop learning, therein lies the fun and challenge and harnessing everyone's contribution towards that.” (Questionnaire)

Examining this statement in the light of Cushion and Partington's (2014) critique, Karen's "philosophy" incorporated aspects that could be classed as coaching rhetoric or as more philosophically-derived axiological (value) considerations. Firstly, she described being, "player-centred". Mirroring Kidman's (2005) definition of player or athlete centeredness, Karen believed in trying to understand and meet the needs of her associates, and in empowering these associates within the coaching process. Related to empowerment, the example of including players in the design of the game plan was identified above, and further examples, including the role of "key player" groups in shaping the coaching process, are given in 4.3.2: *Associates*. In addition, Karen described her belief in following the "Game Sense approach", which resembled Light's (2004) characterisation by focussing on developing players' tactical understanding within game-like situations:

"If we're going to create game awareness and Game Sense, they (players) need to be playing within pitch relevant, pitch-size games, whereby they're looking at the whole picture and putting that into game contexts as much as we possibly can." (Interview 1)

The previous examples were certainly indicative of ideologies in rugby coach education, which Cushion and Partington (2014) have criticised. However, Karen demonstrated a level of understanding of how to operationalise player-centredness and Game Sense (and of their limits; see *Chapter 5*) that went beyond any pretence to significance that might be associated with coaches' use of these terms. Moreover, she highlighted other intentions that were indicative of the axiology (values) espoused by Cushion and Partington (2014). She identified six values that sat at the core of her coaching philosophy:

"For me, it's about... a philosophy that recognises hard work and work ethic, and commitment, and having the right values and respect and honesty... all those key, core values. That means it's the right learning environment." (Interview 1)

These values represented Karen's perceptions of good coaching practice, specifically good practice as head coach, which she felt would help create the best environment for her associates. For example, she expressed the value, "unity", in the following quote, which is indicative of the charismatic nature of her coaching practice:

"I cried in front of them [players], in the changing room after England destroyed us, because that's how much I care, and I don't want them to think that we're [coaches] this entity that's on the sideline; we're all in this boat... well I call it the bus, together... Ultimately, we're all working towards the same goals and the same aims, and that's really important to me. They understand that we're not here just to coach, we absolutely genuinely care about them as people and as players, and we want to make them better." (Interview 1)

Karen also believed "honesty" to be at the heart of all good working relationships. Describing how she exhibited honesty in her coaching practice, Karen talked about only praising players during training when they really deserved it:

"...when I say it's, 'Good', it has been absolutely on-the-button *good*, because I don't want them to think I just say, 'Good'. I think there's an honesty there, and I think players know when it's not good or it's not up to the same standard they'd like to expect of themselves. [There's] no point in me going, 'Never mind, never mind... look on the positive side of it'; I think they know. So, when I say, 'Good' it means *good*, it doesn't mean... it's not a watered down, cheap version of the word good." (Interview 1, original emphasis)

"I'd like to see myself as somebody who is... I'll be honest enough to tell you when it's, 'Good'. Then it matters. Players, particularly female players, are intelligent enough to know when they've made a good tackle, or they're intelligent enough to know when they've got on a good support line." (Interview 2)

Indeed, research has shown that inappropriate use of praise can lower motivation (Amorose and Horn, 2000), and concerns have been raised about coaches adopting a "blanket positive... approach" (Cushion *et al.*, 2012b p.1663).

These value statements reflected Karen's perceptions of the necessary attributes players should demonstrate in the coaching context. Consequently, her values shaped team selection for competitive matches:

"At the end of the day, it's simple for me. The people that work hard for this team and put in performance, work hard and performance, and show the right commitment and the right attitude, they're gunna be in this squad." (Interview 1)

It's really important that players know that hard work and the right commitment and the right attitude gets, it gets recognised and it gets reward. That's fundamentally important to me." (Interview 1)

Moreover, this philosophy guided her intent to avoid using certain behaviours that she associated with bad coaching practice, which relates to questions of morality (i.e., ethics; Hardman and Jones, 2013). For example, she did not believe in using

punishments and scolds. Instead, she gave an example of how she would respond if a player dropped a ball during a training session:

“I am not so sure about the punishment side, I don’t think that’s a mature, adult way about doing things.” (Interview 1)

“They (players) don’t get scolded. Our [catching and passing] for example, we’ve spent a lot of time on that. I’ll say to somebody – they’ve dropped a ball – there’s a technical issue... it’s because they’re running and their hands aren’t up early, or they aren’t in the right place. Of course I will say that, but it’s not about them dropping the ball, it’s about, ‘Right, how are we going to make sure we catch it the next time?’, that’s the difference.” (Interview 1)

Like a number of aspects of her philosophy, Karen’s intent to be honest was informed by her own experiences as a player. For instance, she described experiencing the exaggerated praise of a coach and its negative consequences:

“I know what it’s like when a coach says to you, ‘That was amazing’ and you think, ‘No, it wasn’t, I know it wasn’t’... and I think with our players, and by the virtue of National culture and demeanour, we know when somebody’s telling us a load of nonsense...twaddle. I don’t want to create that environment, because I also think, the unfortunate thing with that is, it creates a real false sense of expectation.” (Interview 2)

In another example, related to the previously highlighted emphasis on empowering players, Karen expanded upon her value statement, “enjoyment”, stating:

“I want to create a coaching environment and a game that the players enjoy playing, but the players have ownership of that game. So, it’s not a directive on high. It’s very much about engaging our players and them having ownership.” (Interview 1)

Again, Karen’s philosophy of empowerment was influenced by her experiences as a player, where she felt her learning had been limited by overly prescriptive coaches:

“Everything was almost, ‘We’re gunna make it this simple for you, we’re gunna tell you how to do it, why you’re doing it...’; therefore, it was never an environment where we had come up with the answers ourselves. It just limited our learning, and it limited our growth to take rugby to the next level. I look at what we were doing now... and the marked difference is having the players have a say in this.” (Interview 1)

As the previous examples alluded, each of Karen’s core values were found to relate most directly to knowledge she developed during different kinds of informal learning experiences. As Cushion and Partington (2014) put it, values are deeply embedded, framed over time and inextricably linked to biography. Informal learning encompasses an abundance of learning sources throughout someone’s life, which tend to be less structured than formal and non-formal learning, and can be incidental (Cushion *et al.*, 2010). Examples of informal coach learning from the literature

include previous experiences of coaching as a player (e.g., Jones *et al.*, 2003); practical coaching experience (e.g., Callary *et al.*, 2012); observations and discussions with other coaches (e.g., Wright *et al.*, 2007); and reading books, journals and magazines (e.g., Reade *et al.*, 2008a). Karen described each of these sources of learning in relation to her coaching philosophy. For example, she particularly highlighted observations and discussions with a number of well-known professional rugby coaches as important sources of learning:

“There is nothing better than having the chance to spend time discussing actual coaching – not all the issues it sometimes get lost in – with some of the most senior and achieving coaches in the game.” (Questionnaire)

Karen depicted her learning from other coaches as a “practical apprenticeship” (Initial Questionnaire), which mirrors existing conceptualisations of coach learning in the literature (Cushion *et al.*, 2003; Nash and Sproule, 2011). Indeed, Karen explained how her intent to use the game-sense approach and less “drill based” activities had been directly informed by observing Brian, a highly respected, former men’s national-level coach:

“I went to watch Brian coach actually. I sat down with Brian, looked at some things that he does, watched his sessions and I thought, I really like that. He was doing all the things that I do, but without thinking about having cones. You know, you don’t need cones, you can just immediately stop a game and say, ‘Right, we’re gunna go into one-on-one tackling’, and get them working on one-on-one [tackling]. It doesn’t need to be in a grid; make it relevant to what we’re doing in the field. There is no point in doing an exercise in a ten-by-ten meter grid and then wondering why the players on the field only do it in a ten meter-by-ten meter space, when actually you’re asking them to play fifty meters across.” (Interview 1)

Like other coaches (e.g., Jones *et al.*, 2003), informal sources of learning were Karen’s preferred means of developing coaching knowledge. However, Karen’s education and training were found to include a mix of informal and more formal provision (Lyle, 2002b). Specifically, Karen identified non-formal sources of learning, which included trying to attend at least one conference, seminar or coaching workshop every month. Furthermore, Karen described how formal learning situations had shaped her coaching philosophy and practice. For instance, she explained how the UKCC Level Three had prompted her to extend her planning by considering certain contingencies:

“I learned about things that we hadn’t covered off as a coaching team... that made me think about substitutions, for example. You know, what are we going to do if our nine gets [sin] binned, what if the nine and ten get [sin] binned? A lot

of what-if scenarios that as a [coaching] team we hadn't worked through, but we need to." (Interview 18)

Despite these examples of non-formal and formal learning, it is of interest that Karen herself traced the origins of her core values, those embodying her greatest conviction and commitment, to her own experiences as a player. Thus, as Schempp and Graber (1992) noted in teaching, Karen's "early experiences form[ed] the evaluation screen through which all future experiences will pass" (p.333). Karen's revelations not only support the notion that knowledge developed as a player will have a continuing influence on the coach's future values, principles and practice (Cushion *et al.*, 2003), but that it may be the most significant source of learning in a coach's development. Indeed, the present findings add to Cushion and colleagues' (2003) suggestion that more formal means of coach learning have less impact on the coaching process than informal sources of coaching knowledge. Moreover, they align well with Light and Evans's (2013) suggestion that the Bourdieusian concept, *habitus*, provides a useful means of identifying the influence of experience on coaching practice.

Examples of the relationship between Karen's philosophy and knowledge, and her intentions for practice have been highlighted, which suggests it would be overly simplistic to say her philosophy only grasped at the ideological rhetoric of coach education (e.g., Cushion and Partington, 2014). However, it was not always the case that Karen's philosophy was freely or entirely fulfilled in the realities of the coaching context. Moreover, to foreground the part of historical playing experiences in the formation of perceptions about good coaching practice is not to say that Karen's philosophy was static or inflexible. Instead, the complexity of the coaching context meant that Karen's values and the practice that they underpinned, were subject to the sometimes irreconcilable needs and expectations and to counterproductive contextual factors (Cassidy *et al.*, 2004). Consequently, Karen's coaching philosophy had to be flexible enough to respond to the dynamics of the coaching context. For example, she described the need to balance the empowerment of players with the need for her to give the coaching process definitive direction:

"It is also crucial that everyone is working towards the same goals, shared goals, which the players have their say in whilst balancing that with direction. So, there is a time and a place for engagement, and a player centred ethos to what we do, but similarly, there is also a place for... not being scared to hedge around that when it perhaps isn't following the player centred philosophy."
(Questionnaire)

“I think there's too much sometimes, you know, this phrase, ‘Player empowerment’. [It is] really, really important, but it's almost like we've gotten scared to coach and scared to input. I've had discussions with players that have said to me, ‘It'd be really nice if our coach coached a bit instead of asking us to come up with answers all the time’. Now again, it's a balance.” (Interview 5)

In another succinct example, related to one of her core values, “enjoyment”, Karen acknowledged that a balance had to be struck between having fun and concentrating on the serious task of improving Scotland Women's performance:

“There's a time and a place for a laugh and a giggle; there's a time and a place where this is now business and work time.” (Interview 1)

Furthermore, in contrast to Karen's earlier insistence that scolding or punishing players was not a part of her philosophy, she acknowledged that sometimes reprimanding the players was necessary:

“You get to know, there's a time and a place to call a spade a spade with some people, and clearly say, ‘*That* is not an acceptable standard within this team’.” (Interview 1, original emphasis)

Indeed, Karen's use of scold behaviour is highlighted in section 5.3: *On-pitch Behaviours*. A final example concerns Karen's use of questioning. Questioning is a key component of player-centred coaching (Kidman, 2005), and something Karen personally emphasised in discussions about her coaching practice:

“I'm constantly asking questions, stop things on the field constantly asking questions about what we're doing, why did they choose that option, what else, what are the other options?” (Interview 1)

However, she also explained the need to balance the desire for players to come up with the answers themselves with an understanding that sometimes players do not know the answer, and that questioning can take time away from active practice:

“I think there's only so far that you get with that and then I think direction is appropriate. The problem we've got is, we've now gone – in terms of the whole ethos of coach education – it's almost like the last thing in the world you'd ever do is actually input and give them (players) some clear direction... I get the whole rationale, you know... player empowerment and player understanding, and all the rest of it, but I do think it gets to a point where they're (players) just like ‘Oh right, ok. Well, I genuinely don't know...’ (Interview 1)

“Genuinely, some of our players do not know. It's acknowledging when they don't know, instead of... you can ask a million and one questions, and that's the thing that annoys me about coaching courses, they go, ‘No, keep asking the question, you're asking the right question’. I think you've got to be able to recognise sometimes they don't know the answer. I don't think there should be any shame in saying, ‘Actually, stop. No, this is because of this...’ and then they get it.” (Interview 1)

“On the training field, they (players) get to a point – especially with the developmental age of the side we’ve got at the moment – whereby, actually, I am going to put some clear parameters around it now. That’s what I feel like I need to do.” (Interview 3)

In summary, and echoing a similar position in PE teaching (Green, 2002), the implementation of Karen’s philosophy in practice represented something of a compromise. In other words, there were inconsistencies between her general explanations or intentions for practice and how she actually practiced. Karen described this process of compromise as a “balancing act”, but also explained that, when confronted with dilemmas, her intention was for player-centeredness to always take priority:

“It’s a case of balancing, sometimes more effectively; sometimes not. What is crucial is that I focus on the most important aspect of all, coaching our players to be better players, and never lose sight of that in amongst all the other issues and aspects of the role.” (Questionnaire)

“I will not sit and I do not rest until I’ve found the answer for my players, but I don’t have all the answers, and I’m not precious in the slightest about admitting that or accepting that. But, my sole job here is to make this team better and to make the players within it better individuals.” (Interview 1)

Here, Raffel’s (1999) distinction between principle- and rule-guided actors is a useful framework for understanding Karen’s agency in determining how to undertake the coaching role. Specifically, where a rule-guided coach might simply base their actions on the expectations of others, as if a set of prescriptions for coaching practice, a principled coach’s behaviours will be infused with a personal consciousness of their actions’ worth or “rightness” (Raffel, 1999). In other words, although Karen undoubtedly considered the needs and expectations of associates, her practice was simultaneously based on a profound consideration of its personal meaning, of how it also represented her own beliefs. Thus, understood as the foundation to a series of practice principles, the premise of Karen’s knowledge and coaching philosophy was not to commit her “to a prearranged act but to definitively guide action while maintaining the required flexibility to be contextual” (Lyle, 1999b p.37).

4.4: ASSOCIATES

4.4.1: ASSOCIATE ROLES, NEEDS AND EXPECTATIONS

The second major component of the coaching process was associates. The head coach was part of a large and complex social network, incorporating unique

individuals in diverse roles. Thus, the grounded model (*Figure 3.0*) shows that social factors in the form of perceived associate roles, needs and expectations shaped Karen's practice. In the same way that her own role frame framed her philosophy and knowledge, Karen's understanding of associate needs and expectations was framed by perceptions of their role or strategic position within and contribution to the coaching process. For example, because the players made a central contribution to achieving the team's formal aims (e.g., qualifying for the next World Cup) Karen invested heavily in trying to meet their personal needs and expectations. In contrast, less focus was given to the personal needs of peripheral associates, such as the Under 20s coaches, and interactions instead appeared to be more concerned with the supporting role the associate could play in meeting player needs. Consequently, this section begins by briefly revisiting Karen's player-centred philosophy in order to describe how she developed an understanding of associate needs and expectations. Then, picking up earlier points, the distribution of leadership in the broader social network of the coaching process and tensions that arose from people's conflicting roles, values and beliefs are explored in greater depth.

Karen's player-centred philosophy encapsulated her desire to meet the differing needs of her players, whom she identified as the most significant influence on how she carried out the coaching role and upon the achievement of coaching process goals. For example, Karen reflected on the different approaches she took to helping players to mentally prepare for a match:

"I don't think there was one player I didn't speak to before the game. Did I do it all at the same time? No, because it is specific to them and meeting that individual need, and acknowledging some people don't need that from you; some people need it at a different time from you. So, of course they get treated differently at various points in time, but not in terms of favouritism. That's how you tune that person in. They might not need that rollocking or some people come up and say, 'Really speak to me and get me going', other people don't need that, they need quiet time and you need to say, 'It's going to be alright today' or, 'I need you to do these three things...' and that's all that needs to be said." (Interview 1)

In addition to her on-going interactions with players, Karen's general perceptions of player needs were developed in two main ways. The first was related to Karen's own experiences as a player, which helped to "put [herself] in the athletes' shoes" (Nash and Collins, 2006 p.471). For example, Karen felt that her appreciation of the

demands associated with being an elite athlete and having a full-time job were essential to her setting realistic expectations for players:

“[I] understand what it’s like to work a full time job and play international rugby, and do all the training commitment that that involves. When I speak to them I get it, because I have walked the walk and had to deal with it, I get it... Speaking to some of these people who are doctors, teachers and people like that, [people] that are working shift systems that are absolutely incompatible really with being what you would call being a professional, elite athlete – because they’re not that – it’s having that understanding of what is a reasonable expectation, a reasonable set of standards to have, but without making it onerous, creating a real false set of expectations around it, because then that would be... it wouldn’t be fair on them and it wouldn’t be fair on me, and it would be a really frustrating environment to work in.” (Interview 1)

“I know three weeks into the Six Nations Championship they’ll be absolutely exhausted, before we’ve even got to match three. Because they’re doing a flipping full-time job and then you’re asking them to perform at international-level rugby at the weekend.” (Interview 1)

When this was probed further, Karen gave an example of how her understanding of player needs had informed her actions:

“They’ve worked a day and that’s taken into account. You know, I will get to Scotland Women training and I’ll gauge it, I’ll cancel meetings because I have looked at them (players) and I’ve thought, they’re knackered, they’re absolutely knackered. ‘Go and chill out, go and have a nice...’ you know, ‘go and chill out with your mates’.” (Interview 1)

Another way in which Karen gained insight into the players’ needs was through the more structured process of player profiling. Profiling involved scoring the player’s mental, physical, tactical and technical attributes and abilities on a standardised form, which was completed by the coaches and by each player about themselves:

“The individual profiling was a massive exercise for us. And, the whole mental section, which I think is a thing which is massively not looked at – we looked at mental, physical, tactical and technical – and we got the players to mark themselves, that was the first part of the exercise, not us. I asked the players to rate themselves... and then we (coaches) marked the two together and had one-to-one meetings with them.” (Interview 1)

From the player profile, an action plan was agreed with each individual so that time would be spent working on areas of weakness and so that coaches would differentiate their practice accordingly. Thus, as a link between Karen’s perceptions of player needs and her behaviours, the action plans informed practice-session plans, particularly the notes section, with specific reminders about individual players:

“We’ll put in things that, around our particular session, we’re just keyed into looking for... just to make us all conscious of the same [player] profiling... It’s fitting the [players’] action plans into the actual sessions so that people think,

actually, we're on the ball here... we know that's one of your key areas to be working on' type thing. You know, there'll be different people in for one-on-one tackles; you'll find Gillian's name, in terms of the contact stuff – some of the back three were really high on the scale for that, and Danielle, the nine.”
(Interview 3)

In comparison to the players, Karen had less frequent interactions with a broad array of other associates. This included the under-20s team coaches, the SRU council member, and various coaches involved in club, regional and Super Series levels. With these less proximal associates, the individual's role within the coaching context rather than their personal needs and expectations influenced Karen's practice. Highlighting this, Karen explained:

“Under-20s coaching staff: key that I engage and hold regular meetings with them, discussions that show we are working together to share resources, are aware of players who are moving up and down between squads, and ensuring we are working towards the same game plan, style of rugby etc., which will ease player transition and learning. Club coaches: crucial our coaching team and I work collaboratively with the clubs so we are aware of what each other needs in terms of working towards helping our players be successful. I have shared player feedback with them, and player goals, and invited them to discuss how we envisage our game plan going forward at the Super Series games. SRU Development Manager: meet with her to ensure she is aware of what our plans are, engage on talent identification and development, attend [recruitment] events within my role as Scotland Women head coach to increase visibility and promote the notion that players who are good enough will get selected. Regional coaches: again, I need to link with these coaches with regards to player talent identification and development. Super Series coaches: as above, and key for assessing whether elements of the Scotland Women coaching programme delivery are being transferred into games.”
(Questionnaire)

Interestingly, Karen's interactions with these more distant associates were focused on meeting the needs of players, rather than the personal needs, for example, of the under-20s coaching staff or club coaches. Probing this point further, Karen saw her interactions with the National under-20s coach as a means to smooth the transition for players progressing into Scotland Women:

“There's now a real good link with the under-20s, and that has never existed. I've got dialogue with my under-20s counterpart in terms of player movement and things, which makes it a lot easier. I think that's a massive positive this year, because there's people (National under-20s players) now starting to come up and through, so the healthier our relationship is, in terms of coaches, I think the players then don't think it's this massive jump up from the junior to the senior team.” (Interview 2)

In this way, Karen's practice was shaped by the social proximity of her associates – how frequently Karen interacted with them – and by their perceived contribution to the goals of the coaching process. Indeed, Karen's social practice was notably

different with those whom she maintained the most frequent contact. Specifically, she was friendly and often joked with the players, but became more serious and “professional” with the head of coach development, who rarely came to training. Similarly, Karen’s conversations with her assistant coaches included more personal themes (e.g., “How is your wife?” and “How is your degree going?”); whereas her interactions with the SRU’s council members tended only to relate only to rugby.

Returning to her closest associates, Karen’s practice varied in relation to more subtle role distinctions than between, for example, the broader categories of club coaches or under-20s coaching staff. Karen often met with groups she distinguished as “key players” to discuss aspects of the coaching process in greater detail than she did with the team as a whole. One of these groups focused on aspects of the game plan related to the lineout:

“I see my role in this set up as sitting down with key people, which I do with Sarah, Naomi and possibly one other, maybe Erin. And I say, ‘Right we’re going to go to a four-man [sic] option, five-man option. How do you think that would look? Where do you think we’ve got the benefits? Which personnel do you think...?’, because that, for me, will translate on the pitch.” (Interview 6)

The social distinction of being a “key player” was based upon the specialised knowledge, positional skills or experience of an individual, related to aspects of rugby game-play (e.g., kicking, scrum, lineout) or to the coaching process more generally. Thus, just as Naomi, a second row with over 50 caps, was always present for discussions related to the lineout, other players who played in the “key positions” of 9, 10 and 15 in the backs were usually present for meetings about backs play. In addition, Karen often had private discussions with a group she called, “senior squad members”. During a stimulated recall interview, Karen recalled how these more experienced players helped to review timings of the match-day warm up:

“We definitely speak about that in the senior players’ meeting. Warm up, ‘Right, what do you think of our warm up?’, you know, ‘What do we think, what could we have gotten better?’ you know. We chat[ed] about that with the senior players and that was immediately fed in and immediately changed our course of action for the following week (the next match-day warm up).” (Interview 14, original emphasis)

Karen’s stated purpose for convening these group meetings was to create a “shared ownership” of the coaching process, which stemmed from her philosophy to empower her associates (Interview 6). This finding furthers the notion that the coaching context is a place of distributed leadership (Jones and Standage, 2006),

with the players, in these examples, contributing to different aspects of coaching process. According to Gronn (2000), rather than existing in a duality of leader and follower, leadership is a joint endeavour, with power shared among the members of a group. However, this is not to say that the relations between agents within the organisational structure of the coaching context were proportionate. The degree of “ownership” or leadership was not shared equally between Karen and all of her associates; some associates tended to have greater power in the coaching process than others. Notably, Karen acknowledged that she retained a generally accepted central authority within the coaching context:

“At certain points, people will want to look to me to make a decision. ‘Right, this is what I am looking for’ or ‘This is what we’re trying to... this is our outcome, this is our end goal’.” (Interview 3)

Indeed, it was Karen who decided upon the areas for discussion in “key player meetings”, as well as what criteria should be met to be considered a “key player”. To take a Bourdieuan stance, Karen’s own capital afforded her the advantage of influencing what was valued among her associates. In other words, Karen shaped what counted as capital within the coaching context (Cushion and Kitchen, 2011). This uneven distribution of leadership was thrown into stark relief by Karen’s perceptions of Abigail, a winger and one of the least experienced players in the team. In contrast to the experienced captain, who was present in most key player groups, Abigail was not present at any such meeting. Karen alluded to the reasons why during two interviews:

“Abigail is clueless on the wing at the minute. She’ll never even remotely think she’s got to run that line, let alone stand out behind Eight. It’s a case of as and when and how much overload we give them of information, for me.” (Interview 6)

“To be quite frank, I don’t need Abigail to be able to read the game plan, because she’s never going to be in key effective decision making roles (playing positions).” (Interview 10)

Karen’s distinction between individuals points to the division of capital and labour in the coaching process, with the head coach, assistant coaches and players, performing different functions, each of which depended upon and influenced the others in their collective endeavour (Jones and Standage, 2006). Indeed, as Yukl (1999) noted of distributed leadership:

“...some leadership functions may be shared by several members of a group, some leadership functions may be allocated to individual members, and a

particular leadership function may be performed by different people at different times" (p.292).

As a result of her own dominant share of the distributed leadership, originating in her possession of various forms of capital (e.g., cultural, social and symbolic; Bourdieu, 1990a), Karen played the most visible role in initiating the distribution of leadership among her associates:

"I have set clear roles and responsibilities within my team to help me balance the various aspects of the role, and trust my colleagues to share the load and do what is necessary." (Questionnaire)

In this way, the coaching process was reciprocal (Jones, 2007); just as her role frame was found to be shaped by interactions with associates, Karen also shaped her associates' roles. Indeed, the following quote illustrates the complex layers of shared and central influence that Karen negotiated through practice in the coaching context:

"They've (assistant coaches) got an opportunity to contribute, and sometimes I'll completely go, 'No, no!', and there'll be other times I'll go, 'Do you know what, I never thought of that, that's a really valid point.' I think the danger is, by not having that avenue of opportunity... you know, again it comes back to... I am not infallible, I am not the guru of everything. There might be something I hadn't thought of, there might be something I'm not even aware of. So, I don't see it as undervaluing my job or my role, [but] there's definite times and places whereby I'm like, 'No! That's my job' and I don't want any confusion with role and responsibility." (Interview 19, original emphasis)

Further examples of the complex distribution of power were also evident. For instance, resembling Yukl's (1999) characterisation, Karen and the assistants all shared in team selection, and the coaches, manager and medical staff all took active roles in ensuring player welfare. Yet, the task of liaising with match officials was allocated to one assistant, the responsibility for managing fitness programmes to the strength and conditioning coaches, and the job of deciding the backs moves to another assistant. Finally, giving last words of instruction and encouragement to the team in the changing room before a match varied, sometimes Karen did it and other times the captain took the lead.

Taken together, these examples underline the importance of context in determining the distribution of leadership at any one time. Thus, as Gronn (2000) stated, particular activities created potential differences in the continuously evolving flow of social influence. In other words, leadership tended to pass from one person to another as situations changed. Using Raven's (2008) taxonomy of power, a key example of this ebb and flow of power was noted in relation to Karen's fluctuating

influence during Six Nations Championship match weekends. Prior to each match, all three coaches collaborated in selecting the team, but where disagreements occurred Karen's legitimacy as head coach was acknowledged and she wielded her authority to overrule without challenge. However, during matches, the head coach was required by competition rules to sit in the stands. Consequently, Karen was unable to influence many of the immediate decisions taken by players on the pitch. For example, when a penalty was awarded the captain was required by rugby's laws to opt either to kick for goal or to touch, a responsibility which can be associated with the legitimate power of the captain. However, when a lineout occurred, Karen, based on her expertise and playing position, took charge of deciding the forwards' attacking strategy. Karen could only watch these choices, taking notes in the stands, and hope to influence future decisions by suggesting different courses of action at half time or working on new strategies in training. Yet, the assistants, who by competition rules was allowed pitch-side, could more readily intervene during stoppages in play. Therefore, Karen ensured that she could influence the assistants' interventions by communicating with him via a wireless radio. Finally, when an injury occurred, given her general overview of the game from the stands, it was Karen who decided which of the substitutes would be used.

In summary, varied contextual factors constrained and afforded opportunities for Karen to exercise leadership in the coaching process, which simultaneously underpinned the ebb and flow of power between her associates (Gronn, 2002). Such a view is counter to notions of the coach as an omniscient dictator; instead, positioning Karen as a collaborative orchestrator, albeit with central authority, in constituting and directing the coaching process (Jones and Standage, 2006; Jones and Wallace, 2006). Moreover, this understanding furthers the general picture being presently developed of the coaching process as a shared labour, one in which the interplay of agency and structure was evident in Karen's activity and that of her associates.

Although the collaborative nature of the coaching process has been a focus of this section, numerous tensions and conflicts were also evident in Karen's practice. Some of these conflicts arose, as Taylor and McEwan (2010; 2012) have also noted of sport coaching, from the complex interprofessional relationships between head

coach and associates, which militated against the simple “performance” of Karen’s coaching role. In other words, Karen, the assistant coaches, team manager, performance manager, medics and strength and conditioning coaches did not always work harmoniously together. For example, at training weekends, players sometimes arrived requiring a medical assessment in order to be cleared to train. The medical team would complete these assessments in the changing rooms whilst Karen began the training session with the rest of the team. However, Karen found that without frequent updates on the status of players being assessed her role was made harder:

“I need to know how many fit players I have because we design session plans around thirty [players]. You know, [going from] thirty to twenty four is a significant difference... and that really annoys me. Like, they don’t realise, that’s the kind of information that I want [Team Manager] to tell me, to confirm with the medical people, so that I can genuinely focus just on the coaching. At the moment, I find that I’ve got to be on top of everything else in order to be able to coach as opposed to being able to coach because I had everything else.” (Interview 10)

“We sometimes run over because we haven’t gotten things done within the time scale, because the squad’s not out in time. Therefore no, our session is not going to run to time, because the medical people hadn’t got them all out the changing rooms.” (Interview 17)

Similarly, when a player suffered a head injury during a match, the medical team needed to undertake a series of immediate tests to assess the nature and extent of the injury, yet Karen sometimes pressed them for information over the radio to inform her substitution decisions. Here, Karen’s responsibility for making a substitution clashed with the medics’ need for time to properly care for the player. Other conflicts came between the performance manager and team manager’s need to control spending on indoor training venues and Karen’s desire to have a pre-booked backup location in case of bad weather. For example, Karen bemoaned their decision not to book a contingent indoor facility when snow had meant that a day’s training from training weekend two was moved at the last minute to another venue, the only rugby ground available at short notice:

“What I find frustrating is the things that we want to get better at and deliver to a certain level are impacted by things like facilities. You know, massive impact; [that day], for me, was a complete write off. I was annoyed at [Team Manager] and I was annoyed at [Performance Manager], I was annoyed at everybody, because that massively impacts on the quality of the work we can do, the quality of what we intended doing. We’ve put a massive plan together and just because of that (the weather)... I was like, *there* (change of venue)? It’s the back end of nowhere. It’s got none of the facilities we need; it’s not got a meeting room. We can’t go inside and the pitch is so exposed it’s blowing a

gale.' That is not contingency in my world, you know, it just is nonsense."
(Interview 17, original emphasis)

Conflicts not only arose from the different roles and responsibilities people held within the coaching context, but as Jones and colleagues (2005; 2009b) have pointed out, from the divergent values and beliefs among stakeholders in the coaching process. For example, the clash between Karen and the head of coach development about her vision for a more expansive tactical approach has already been mentioned, but Karen also recognised that club coaches held different beliefs about how to best develop the players:

"Undoubtedly, sometimes the roles clash. Sometimes I feel the club coaches don't understand where we need to be heading or the reasons that lie behind what we are doing in terms of genuinely trying to support these players to be able to compete at a higher level and what that actually needs. There are differing viewpoints on that, so it's being open to compromise in trying to find a way forward. But, 'easy' was never in the job description... therein lies the challenge." (Questionnaire)

Similarly, Karen, and her assistants did not always agree on which players should be selected for Scotland Women, and, the performance manager sometimes created tension by trying to influence their selection choices:

"Friday night, [Performance Manager] rang [Assistant One] up, off the cuff, and was like, 'Listen, have you thought about Abigail playing defensively at thirteen'. That's [Performance Manager] with a coaching hat on. [Assistant One] wasn't comfortable about it. He met up with [Assistant Two] and was like, 'I'm really unhappy about that because we're running Jade at thirteen for a very distinct, definite reason. We've run with that and we've practiced with that'. So, [Assistant Two] pulled me [aside] the minute I got here and he said, 'Are you thinking of running Abigail?'... [Both Assistants] literally were like, 'Oh fucking hell, maybe it did come from Karen'. So, he pulled me [aside] and he said, 'Are you serious about it?' and I said, 'No'... I said, 'Absolutely not'. And, and he said, 'Oh that's funny...', he said, '...because [Performance Manager] rung up [Assistant One] last night and said, 'Have you thought about blah blah blah'. And I said, 'Well, I never asked her to do that'. I'm going to have to speak to [her] about that. (Interview 9)

Thus, in terms of power and influence, interactions within the coaching context were not only characterised by cooperation and compliance, but also by resistance (Purdy *et al.*, 2008). Here the multifaceted "play of powers" (Westwood, 2001) was revealed as Karen negotiated her way through the social relations of the coaching process. Indeed, the term negotiation is apt to describe Karen's need to compromise in order to maintain people's collaborative efforts towards the goals of the coaching process in what Jones *et al.* (2002) called, "the soothing of resistance through adaptation" (p.42).

A final form of conflict occurred within Karen's role frame, resulting from the breadth of her responsibilities and functions within the coaching process. Kahn *et al.* (1964) expressed this form of occupational complexity as "role conflict", which they defined as someone's perceived degree of incongruent role expectations. For example, role conflict existed between Karen's need to select the best side in order to win matches, but also to give less established players enough game time to improve. In addition, she felt the need to maximise on-field preparation time for players to improve their understanding of the game plan, whilst ensuring that players had sufficient time to rest and physically recover for matches. Another key example of role conflict was between Karen's responsibilities to develop both the assistant coaches and the players. Consequently, dilemmas occurred when Karen spotted an issue with a player's technique or the team's tactics but the assistant coaches were meant to be leading the training session. Should she step in, or should she stand back? This dilemma was illustrated by the following quotes:

"Do I feel it's got to come out of my mouth all the time? No. They're (assistant coaches) perfectly capable of delivering that on my behalf. It's also about developing and managing my team [assistant coaches]. If they think all the time, 'I was doing this session and Karen breezes in and goes...*everybody, stop a minute*'... *God*. There will be times when I have to do that, but it won't be each and every occasion. I want the staff to feel like they can coach and they are involved in the coaching process." (Interview 1, original emphasis)

"[The assistant coaches] know if I step in and I say something, I've got almost free licence to do that. I will step in and just say it; I won't just stand there and think, will I mention that later on?" (Interview 1)

"...that's my biggest battle, I'd love to stand back, but then I sometime feel like I am not coaching, I'm not doing something." (Interview 3)

In reality, the apparent contradiction contained in these statements represents a judgement point at the intersection of two roles, further highlighting the complexity of Karen's role. Furthermore, it adds to studies indicating the importance of developing critical thinking and decision-making skills for sport coaches (Knowles, Borrie and Telfer, 2005). Indeed, Nash and colleagues (2012) have recently suggested that sophisticated decision making necessitated by managing multilevel agendas may be indicative of expert coaching practice.

4.5: THE COACHING CONTEXT

The third major component of the grounded model (*Figure 3.0*) is the coaching context. The coaching context describes the distinctive environment in which the coaching process occurred. Specifically, three categories of contextual factors were identified, which combined in unique ways to shape the coaching process: various situational factors; different kinds of resources; and several extraneous factors. Moreover, Karen encountered these contextual factors in three core settings: organisation, preparation and competition, which broadly reflect the components of the Coaching Model (Côté *et al.*, 1995c). A brief overview of these settings is given before the three classifications of contextual factors are described and explained in more detail.

Each of the settings identified in the grounded model were associated with unique tasks and activities that not only brought with them distinctive contextual factors, but also brought Karen into contact with different associates. For example, like Côté *et al.* (1995c), the organisation component included tasks related to planning daily itineraries for training weekends with the assistant coaches; meeting the performance manager to discuss the team's progress; and the recording of injury management and return-to-play protocols with the medical team. Secondly, the preparation setting was concerned with preparing the players for competition. As well as training sessions, this setting included strength and conditioning work, pool recovery, briefings on nutrition and refereeing, as well as performance analysis and specialist skills sessions. These activities brought Karen into contact with people not often involved in the organisation setting, such as match officials, as well as those with limited involvement in the competition setting (e.g., nutritionist). Thus, where the training component of the previous Coaching Model related primarily to the actual physical practice of skills and techniques (Côté *et al.*, 1995a; Côté *et al.*, 1995c), the present grounded model incorporates additional activities in the coaching process. Finally, the competition setting included all of Karen's tasks, activities and actions immediately before, during and immediately after competitive matches on match days. Specifically, this included warm ups; substitutions and other interventions during the match; team talks before, at half-time and following the match; and post-match receptions and media engagements. Again, Karen interacted

with different people in the competition setting, such as an SRU council member, who were not involved in the other settings.

4.5.1: SITUATIONAL FACTORS

Karen's coaching practice occurred within a climate of locally specific situational challenges related to Scotland Women. These challenges included Scotland Women's recent competitive history and of their relationship with club and university teams from which the players were drawn.

The 2011/2012 season of this research was also Karen's first full season in charge of Scotland Women. Consequently, a key challenge was to impose her philosophy, and particularly her desired playing style, in the face of Scotland Women's recent tactical approaches under previous head coaches. Specifically, Karen felt that a traditional reliance on powerful forwards was outdated and a significant problem for her to address:

"Scotland Women's rugby has always been reliant on a massive front eight (forwards)..., ten, twelve man [sic] rugby with no real incentive or acknowledgment of what we're doing off quick ball or where we want to go right out in that wide channel." (Interview 1)

"I watched Scotland Women play in the [previous] World Cup and they did not know what to do with quick ball, they did not know what to do because there was somebody running the nine-ten channel, [just] picking-and-going and picking-and-going and picking-and-going. I watched them... I watched them create loads and loads of pressure and quick ball with four man [sic] over laps and they couldn't send it down the field because they couldn't catch and pass. That's never gonna... you're never gonna get anywhere playing rugby like that. So, for me, it was about coming in and it had to mean... it had to be about change." (Interview 8)

In dealing with this by seeking to change Scotland Women's playing style, Karen encountered resistance from people like the head of coach development, who questioned the players' capability of playing the new style of rugby. Moreover, Karen recognised that some players would not take to the new approach, possibly choosing to withdraw themselves from the squad, whilst others would be enthused by the new playing style:

"We will lose people, definitely. We will lose people on the way, but I think that there will be other people who will go, 'I want to be a part of that, because that's exciting', which is why the 'W' (winning) is also important: 'God, they won at the weekend, I want to be a part of that'. (Interview 1)

This point builds on Audas and colleagues' (2010) findings from their study of English football managers, which suggests that it is both common for incoming managers to change tactical approaches, and for the new approach to take time to become established, which may be unsuitable for some players who could leave the team.

The previous quote also highlights the importance of winning, not simply as an expectation of the SRU, but as an inherent part of the sub-culture of the sporting situation that Karen worked in (Mallett and Côté, 2006). Indeed, Karen perceived winning to be a key factor in creating "buy-in" among her associates to her vision for Scotland Women. This was particularly relevant in the light of Scotland Women's previous run of results. Prior to Karen taking charge, they had only won three Six Nations Championship games in five years:

"You need to give them (the players) something... they need to see we can win. That's a team that has never won. There's a girl on that team today that's not won a game of rugby – because of the [club] side she plays for in England, but more to the point, playing for Scotland Women – she's not played in a game of rugby that she's won for two years. Eventually, its self-propheysing isn't it. It's like, 'Can I win? Can I play in a team that... do teams win?'" (Interview 1)
"You need a W, you need something, at the end of the day that's... 'Bloody hell, that was enjoyable'. You know, I think it is important, definitely." (Interview 1)

Furthermore, the team's history of limited wins placed pressure on Karen's belief in her own philosophy and vision, which had been so successful at Richmond RFC, where winning was the norm. Karen described the need to "stick to her game plan" (Interview 12) despite the fact that the team's progress might be slower than she had experienced with Richmond RFC:

"I suppose it's having the belief in myself to say, 'That's where we're going...'. We're going to have some absolute massive knocks of confidence on our way. Dealing with that as an individual and as a coach I think is quite difficult, because I am used to coaching a very winning, competitive, always okay environment (club side). Then, coming out of that and trying to put my head into this kind of coaching environment, which is an international set-up, and just trying to just take little steps forward." (Interview 1)

Karen's experiences support Olusoga *et al.*'s (2010) finding that the pressures of top-level sport are likely to test coaches' confidence in their approach. Indeed, confidence has been highlighted as equally important for coaches as for athletes operating at the highest levels (Olusoga *et al.*, 2012). Moreover, demonstrating a strong belief in the chosen approach has been reported to be perceived positively by athletes (Becker, 2009), suggesting that Karen's determination may have been a

factor in cultivating a collective alignment, among her associates, with her new approach.

Practically, Scotland Women's previous results influenced Karen's coaching practice in two clear ways. Firstly, Karen tried to maintain realistic expectations for the team, "targeting" specific Six Nations Championship games against those teams where she felt wins were most attainable:

"As far as I'm concerned, we're now going into a tournament where we're going to... our target's got to be winning against Wales, winning against Italy at home and then seeing if we can... you know, kind of keep the score lines reasonable against France and England away from home." (Interview 15)

"Playing well against England and France means nothing if you can't then pick up a consistent performance against the other three that we actively target." (Interview 17)

Accordingly, Karen tried to ensure that the best players were available to play in the critical games against Wales and Italy. However, as has been reported elsewhere (e.g., Thelwell, Weston, Greenlees and Hutchings, 2008; Thelwell, Weston and Greenlees, 2010) player injury created a dynamic challenge during the coaching process. Consequently, Karen was careful to try to manage the risk of losing key players before targeted games. For example, Sarah, one of Scotland Women's key players, was injured during the game against Ireland, one of the strongest teams, before they were due to play Italy. As the physiotherapist began his on-pitch assessment of the injury, Karen watched on. She used her radio to talk to him on the pitch:

Karen:	"[Physiotherapist], we need her for Italy."
Physiotherapist:	"I think she'll be ok, it'll just take a minute, she'll be ok."
Karen:	"If it's even slightly ropey, we need her for next week."
Physiotherapist:	"She's fine."
Karen:	"Let's keep an eye on her for five minutes, literally five minutes. Tell Jasmine to keep warm..."

Another impact of Scotland Women's competition history was notable in the team's differing preparations for each Six Nations Championship match. Specifically, Karen and her assistants varied how much they referred to the previous season's matches based on their associated results. For example, during a video analysis meeting prior to the game against France, no footage was used from the previous year's game; while footage was used from the previous season's game against Italy. Karen explained:

“France, I mean they destroyed us last year. So, that’s why we made no reference to that whatsoever, that game.” (Interview 13)

Groom *et al.* (2011) reported a similar concern among England team football coaches, who were careful to manage the players’ perceptions of the opposition through the delivery of video footage and analysis. Moreover, during preparations for playing England and France, who had beaten Scotland Women 89-0 and 53-3 respectively the previous year, the coaches discussed the need to boost player confidence. They agreed that it was necessary to be deliberately upbeat and positive during the final training sessions and the match-day warm up, and not to pick-up too strongly on things that did not go according to plan. Karen reflected on these points, saying:

“With England... the coaching team had set parameters in terms of saying, ‘We are as upbeat as we can be’, because we know we’re up against a mountain tomorrow.” (Interview 11)

“One of the biggest things, for me, in the warm up is generating some confidence... so that people actually go out with no kind of doubt: ‘Oh god, it’s France...’ or ‘Oh god, it’s them.’ (Interview 14)

Thus, Karen tried to help athletes to “believe that they can do it” by adopting an outwardly positive and upbeat persona, which was also highlighted in a study of high-performance gymnastics coaches (Côté *et al.*, 1995a). This finding further adds to the notion that the coach has an important role to play in mentally preparing athletes for competition (Bloom, Durand-Bush and Salmela, 1997).

Another situational factor that constrained the coaching process was the quality of coaching and competition at a club and university level. For Karen, the gap in match intensity between club rugby and playing for Scotland Women was huge, meaning that many of the players were ill prepared for the standards of international competition:

“We can’t afford, as we painfully learned last year, to not be mentally switched on. When we are mentally switched off – because they’re not used to that [intensity] in any shape, sense or form in terms of domestic club rugby – they don’t realise that mental switch-off for 20 seconds at international rugby is, potentially, a try getting scored.” (Interview 5)

The impact of coaching and competition at club level was also evident in training. Specifically, Karen noted differences between players from the England club league and those still playing in their home country:

“I know, when I speak about things... if I say to Sarah (English club-league player), ‘Double threat’, she knows immediately what I am talking about. You know, some of them do because the standard of coaching on a weekly basis is

better in England in the club game. So, there will be some things that I don't have to repeat or I don't have to break down into little blocks in order to get to the end result. They'll know what I am doing as they're doing it on a regular basis, purely because the standard of player they're training with, never mind playing with, training with on a weekly basis, and then the standard of game they're playing in [is better]." (Interview 1)

Therefore, in an attempt to reduce the gap between club and international levels, Karen had introduced the Super Series matches to provide more regular high-intensity competition between the players:

"The standard of the [club] game on a weekly basis is not competitive enough and there's a limited player pool there. Therefore, we've got to create competition and I think we've definitely done that... Ultimately, you've got to be a realist, and the gap is massive; the bridge between club rugby and then going up to here. And that's why the Super Series game are in there, and they've (players) had to adapt to that. That level of performance is now being put in the calendar, because we need to create far more competitive standard games that are a real quality... you know, quality rugby, to be able to give the players the Game Sense and awareness that I need them [to have] to be able to function at the next level. And club rugby's not... I can't rely on club rugby to do that." (Interview 1)

However, even the Super Series matches were not a complete solution to the problem. As Scotland Women only trained together around once per month, Karen noticed that the progress made in some phases of the season was not sustained during breaks between Scotland Women training and Super Series matches:

"The problem is... in the Super Series game I watched a week ago, having had little contact... having no contact with them for a month, I watched players revert to what they were doing before we got into the October phase. So, there's a massive area of weakness there in terms of the impact they've got with those club coaches, and time with them, and the difference that makes to me... the player... product I get." (Interview 2)

Indeed, the time Scotland Women had to prepare for competition was classified, along with various other contextual factors, as a key resource.

4.5.2: RESOURCES

The availability or lack of various resources created opportunities and challenges for Karen during the coaching process. Specifically, the often-interrelated variables of time, finances, staffing and players required Karen to remain flexible in how she carried out her role – planning only helped so much:

"I think about my coaching session, I plan my coaching session, but then, as I'm walking out to actually deliver, it becomes... you know, have I got the resources I want? No! Okay, that's completely changed that then. So the, the whole point of me being able to stand back and maybe do some one-to-one, pull somebody out and have that really good quality one-on-one time with them, it's gone

sailing out the window because the dynamic's completely changed with the resourcing. Or, you know, we thought we had that amount of time; no, we haven't got that amount of time, that's now completely changed." (Interview 5)

Indeed, given that Karen highlights here the lack of utility of her planning in practice, the extent to which she actually engaged in planning is brought into question. This relates well to Cushion's (2007b) point that having to improvise is not something that coaches might necessarily choose, but when the control and predictability Karen desired through planning was so clearly not possible, perhaps the time she spent planning could have been used more effectively.

Time was an especially precious resource for Karen, which has often been identified as a key stressor for coaches in various contexts (Saury and Durand, 1998; Thelwell *et al.*, 2008; Olusoga, Butt, Hays and Maynard, 2009). For Karen, time pressure was principally experienced in relation to the number of Scotland Women training sessions the SRU paid for each year:

"The amount of time I have with them is a massive issue because of the problems and the weaknesses with our club coaching and with the club game." (Interview 2)

This lack of contact with her players was thrown into stark relief when compared to some of SRU's other representative teams, which Karen highlighted:

"I was speaking to [Head of Coach Development] about it. You know, the age group that's got the most input is the [men's] under twenties. Seventy two [training] days they get in a year; I've got twelve... and I had to fight for twelve. It was at eight and I said, 'You're joking aren't you?'. *Twelve!* So, my issue... is what's going on with the other 347 [sic] days in the year." (Interview 18, original emphasis)

Here, in addition to the perceived limitations in club-level coaching, Karen's coaching practice was directly constrained by Scotland Women's restricted training schedule. Moreover, Karen questioned how she would be able to incorporate all the meetings and other activities necessary for Scotland Women to function and still to have time for on-pitch coaching:

"The pressure's on us on Saturday, for example, to also fit in [meetings about] team culture and team values, input from the manager, input from the performance manager. And I'm like, 'Where's the coaching time?' So, that time constraint at this level is massive because the things I need to be doing, and the intensity I need them to be performing at mentally and physically are not being replicated anywhere else. So, you're immediately battling against all odds." (Interview 5)

Related to her coaching philosophy, the knock on effect this had on Karen's time getting to understand the needs of individual player:

“You feel guilty because you want to take time off to sit down with players and have one-to-ones. And you just haven’t got the time, physically haven’t got the time.” (Interview 18)

However, it is questionable, given the extent of control that Karen has been shown to have maintained over the planning of training weekend activities, why she did not stipulate a reduction in some aspects of the itinerary to allow for more “coaching time”. Moreover, from a physiological recovery perspective, the efficacy of simply training more or at a higher intensity, particularly around the time of competition would be challenged by related research (Polman & Houlahan, 2004). Yet, Karen did develop some practical solutions to her time limitations. For instance, she specified technical “work ons” for individual players to complete in their own time or when at their club training, hoping to keep as much time during Scotland Women training for whole-team, game-based activities:

“We have got so much game awareness and Game Sense to develop, and full-team stuff that... in terms of the weekends, the time that I have is very restrictive... in terms of the contact I actually have with the whole team. I said, ‘This has got to happen outwith the squad’. We can’t be writing off, of say a potential four hours training on one day, an hour of that to sort out our set piece”. (Interview 11)

The scheduling of training sessions was constrained by the financial resources allocated to the women’s senior team by the SRU and by the part-time availability of staff and players. Financial challenges have previously been highlighted as a stressor for coaches (e.g., Thelwell *et al.*, 2008); however, this issue has typically been raised in full-time, professional contexts where constraints related to buying and selling players. In the part-time (coaches) and amateur (players) context of the present research, limited financial resources directly affected the number of training sessions and coaching staff that Scotland Women could afford each season. Although all of SRU’s representative teams seemed to have comparatively smaller budgets than their main rivals, the women’s budget was the smallest of all.

Consequently, when the SRU decided part-way through the 2011/2012 season to introduce a national women’s 7’s team, without increasing the overall women’s budget, it added to Karen’s concerns:

“After practice, all of the coaches gather for a meeting with [the performance manager] to catch up about how the Six Nations Championship is going. She also updates Karen, [and the assistant coaches] about the Scotland Women budget and, particularly, how the planned introduction of a 7’s team is likely to

impact the availability of players and the number of practice weekends next season. For example, [the performance manager] describes that there is not going to be enough budget to run a 'summer camp' or to have an Autumn International in the coming season. There is a general gloom among the coaches, especially Karen, about the impact of these decisions." (Fieldnotes, Wales match)

Another example of the impact of financial resources was notable on match days. To save employing someone else in the role, one assistant coach doubled as the video analyst during matches. According to competition rules, one assistant coach operated at pitch-side, the team manager managed the players in the dugout and Karen was restricted to a specified area of the stands during the Six Nations Championship. This meant she usually only had the performance manager nearby to discuss the match with as it progressed. Reflecting on this, Karen confirmed that she missed the support and opinion of her assistant coaches, and talked about what she would do if finances were not restricted:

"Actually, [Assistant Coach] would be here (pointing to the seat next to her) with me and we would be really looking at coaching elements. But he was brought on-board in terms of a controlled budget and limitation with budgets. It's video analyst slash backs coaching. So, ideally, what you would have is you would have [Assistant Coach] sitting here next to me and you would have somebody else on the camera." (Interview 1)

"I'm like, well [Performance Manager], actually I don't need you standing next to me, I don't. I need, the coaching staff standing next to me." (Interview 7)

Karen's own part-time status also affected her ability to implement all of her intentions as head coach. Balancing a full-time and high profile career with the demands of also being Scotland Women head coach was not easy, which Karen explained:

"With the [day] job and all the other things, there are weeks where it is absolutely impossible to do this job to the extent I would want to do it because it's not a full time job." (Interview 10)

Yet, she felt that she did more work connected to Scotland Women per week than some of her Six Nations Championship rival coaches, who were full-time:

"It's almost as though I'm doing a full time job. You know, like my English peer group; I mean our jobs are just... I would challenge anybody to say that I don't do as much as the England coach in a week around my players. But, that's not my job." (Interview 2)

"I think we do, bearing in mind we're a part-time management team and coaching staff, I think we deliver if not as much then more than people who I know are full-time paid to do their job, and I think the players know that." (Interview 2)

Indeed, coaching at the highest levels has been shown to be a consuming and exhausting process even for full-time coaches (Thelwell *et al.*, 2008; Levy, Nicholls, Marchant, Polman, Fletcher and Hanin, 2009).

In response to the pressures Karen was under, the assistants often helped to share this load by recognising when Karen was exhausted at the end of a busy working week:

“[Assistant Coach] is brilliant, saying, ‘Do you want me to do that?’... ‘Absolutely!’ And I will be the first to say, ‘I’m blowing out my arse, I need to go to bed’ or, ‘I will not be at breakfast today at half eight, I will be at nine o’clock’ and everybody gets that. But it’s not just the coaching, my job you know... I’ve got an absolute, pretty important, high-stress job, so they manage that with me. I think if you’re open with telling people that... I think if you tried to hide that, that’s the danger.” (Interview 1)

This was in contrast to Karen’s experiences at club level, where a much smaller budget meant she had even less resources to share the load. In fact, at club level, Karen felt unable to “oversee” the coaching process as she felt a head coach should:

“I could, at a session, do very little coaching. There’s been sessions I’ve said to you, ‘I’m not going to do a lot today, I really want to stand back and I want to see who’s doing what’. And that’s really unusual for me, because every Tuesday, Thursday and Sunday (at Richmond RFC) I am coaching... hands-on delivery, nobody else to talk to.” (Interview 18)

Here, just as Karen was shown to empathise with the amateur status of her players by cancelling meetings to give them a rest (see 4.3.2.1: *Associate Roles, Needs and Expectations*), through a shared understanding of the challenging context they operated in, her associates empathised with her. This demonstrates the negotiated nature of the coaching process as well as the mutual care shown in the pedagogic relationships of the coach and their associates (Jones, 2009).

The experience and quality of the players was another resource that shaped the coaching process. For example, Karen felt that the players’ skill levels dictated how much of her vision for the team’s style of play was reasonably achievable each season:

“You can come up with a coaching philosophy and you can come up with a game plan, you can come up with a style of rugby, and actually, it’s completely limited by where we’re at skill wise” (Interview 1)

Thus, Karen explained how she had broken down her vision into stages and taken a longer-term view of how quickly the team would be able to progress:

“We’ve just worked on our hand-catch and pass and feet work, now we’re into running lines and the contact area. And it’ll be something else, then something else. Literally, there’s chunks across the next three years, so that hopefully by 2014 (next World Cup) – end of season 2013 into 2014 – we’ll have ticked off about nine chunks. We’ve just got to be patient. There’s no way anybody is doing this job or come into it going, ‘Yeah, this will be remedied in a season and a half or even two seasons’, there’s no way.” (Interview 1)

A compounding issue was a lack of players in key positions, which meant that there were limited options to replace or drop certain members of the squad regardless of their performance. Karen gave an example of this constraint in relation to a highly experienced player whose performances were inconsistent and who often caused disharmony in the squad:

“Jess is someone who has been there for a long, long time, an established player... there’s never been any competition [in her position] for about three seasons. But, if we keep working with this new player, there will be competition there and then suddenly you breed... you know, we need to have two good players in every position. That’s what I would like to see us having, so we have got depth.” (Interview 1)

A final example of challenges posed by Karen’s resources was the relative youth and inexperience of many of the squad, particularly when Scotland Women were competing against teams with much more established player development programmes and pathways. A key example of this was recorded in fieldnotes after a casual conversation following the Autumn International match:

“Karen mentioned that [an England player] came to watch the game today. By way of contrast, Karen said, ‘Claire (a Scotland Women’s player) played for the first time in her life at international level today; she (the England player) has spent 13 years in a player pathway. There’s no comparison to make’.” (Fieldnotes, Autumn International match)

However, Karen also stated that the general inexperience of the players brought opportunities as well as challenges. Specifically, she identified the desire to learn and develop as a positive characteristic of her players:

“There’s so much scope with [the coaching] because the players are at such an early stage of development in terms of international rugby that they’re sponges, they want to know.” (Interview 1)

Indeed, player inexperience was of value to Karen in trying to implement a change in playing and coaching style, to which she might rightly have expected the most resistance from older, more experienced players (Potrac and Jones, 2011).

4.5.3: EXTRANEIOUS FACTORS

The third component of the coaching context that shaped the coaching process was extraneous factors. Unlike some situational factors and resources, over which Karen had short- or long-term influence, extraneous factors were largely outside of her control and could vary on a day-by-day basis. However, this did not stop Karen from trying to plan for and accommodate the challenges and opportunities that extraneous factors such as weather conditions, the referee and opposition teams presented.

In the UK, challenging weather conditions are an unpredictable and unavoidable feature of coaching rugby union. Thus, as Saury and Durand (1998) discovered with sailing coaches, Karen found it necessary to frequently adapt to changes in the weather. For example, in the preparation setting, several training sessions initially planned to take place at Scotland Women's usual outdoor training venue had to be moved to indoor facilities due to snow or frost. This often happened with very little notice and – as noted earlier in this chapter when the team had to move to another venue – sometimes without a desirable back-up venue already arranged. Karen expressed a high degree of frustration caused by changing venue due to weather condition:

"It's a massive issue, the time I have got with them. And then we go into Saturday and the complications with weather and things like that, that's why there's a frustration, because we have such little time with them; yet, we've got masses of ground to make up for and cover – technically, tactically, everything really." (Interview 1)

"The green keeper comes out and goes, 'No, it's off'. *Eh!* Standing in a car park with 10 management and 30 players, 'What do you mean it's off?'. And we don't know where we're going. I mean that... and that's Scotland Women... you know, I mean, I think that's an absolute shambles and a disgrace. Nothing on our part we could do about it, but actually that massively impacts on your coaching." (Interview 18, original emphasis)

Karen also referred to the more subtle impact that changing venue had to her planned activities:

"We think we've planned... we've got a plan, and we've even got a contingency plan, but even then we haven't got plan C, D, E and F. Suddenly the facilities that you think you're going to have, you know, the size of the area that you use... just the whole logistics of the thing are completely changed within 25 minutes, before you're even due to start." (Interview 2)

Thus, alterations affected plans for travelling to and from the team hotel as well as to the timings and durations of training sessions, which also had a knock-on effect on planned meal times as well as evening meetings and activities due to occur upon

returning to the hotel. The physical space available for training also changed, which affected intended group and activity-area sizes, and some facilities were unsuitable for Karen to include match-realistic tackling.

Weather conditions were also a challenge in the competitive setting. For example, during the warm up before playing Ireland, Karen ensured that the team practiced on both sides of the pitch to get used to passing both with and against the especially windy conditions. In addition, Karen and the other coaches frequently mentioned the weather conditions to the team during pre-match meetings, as they could influence the execution of specialised skills, such as kicking. However, the variable conditions did not always result in Karen adapting her plans. For instance, prior to Scotland Women's game against Wales, rain had caused the playing surface to become extremely heavy, which did not suit Karen's intentions for an expansive, speed-based game plan. Conversely, the condition of the pitch did favour Wales's more direct and abrasive approach. Even so, Karen explained that it was important to stick to the long-term vision she had introduced:

"We arrived at that playing surface on the night before and saw it, and to be honest, I've never seen anything like it, we don't play club rugby on a surface like that. So, everybody was kind of like... you know, 'Oh my god'. We're not a team now that is going to play a big hurly-burly forwards game because we haven't got the size. We've gone on about playing this kind of [expansive] rugby and we thought, 'Well, we're just going to stick with our game plan'. We're not going to suddenly do a role reversal less than twelve hours out [from a game]." (Interview 12)

"...we didn't go, 'Right we're gonna play this tight game', you know... 'Keep it in close game' and all the rest of it. But what we did say, 'Wales will try and kill this ball and they'll try and slow it down, and then play off of whatever they get'. But it didn't change us saying, 'Right, we're still going to aspire to play with a bit of width in our game...' (Interview 12)

Scotland Women lost to Wales, in one of the matches Karen had "targeted" for a win (see 4.5.1: *Situational Factors*).

The referee was another unpredictable aspect of the coaching process in the competitive setting, creating both opportunities and challenges for the coach. The following fieldnotes of a casual conversation show that Karen believed that referees created challenges by influencing the score line, Scotland Women's possession and territory, and her timing of substitutions:

"One of the principle constraints that Karen identified after the game today was the referee. She described two main impacts on the team; the usual, direct decisions that impact the score line or other game-play factors such as

possession or territory. However, another thing was the way referees and assistant referees prevent her from making quick substitutions. Karen felt that today's score line did not reflect the true improvement of the team. This was notable when she highlighted two England tries that were scored from bad decisions. She explained to the other coaches that they would have to reinforce to the players that their performance represented a more significant improvement than the score line suggested." (Fieldnotes, Autumn International match)

Few studies have previously examined the impact of officials on the coaching process, although Trudel *et al.* (1996) and Côté *et al.* (1993) suggest that coaches are most likely to interact with officials in order to disagree with their decisions. Yet, Karen also highlighted the fact that when referees ensured an open and fair contest, it enabled the expansive style of rugby she advocated and gave the team confidence in the game plan:

"When you get a good referee, the cheating stops, the lying on the floor stops, it's a better standard of rugby. The players then aspire to playing differently, because they're not getting frustrated, the coaching team's not getting frustrated. It's just typical of the women's game, sometimes you get a really good ref and it completely affects the quality of the game." (Interview 7)

Unsurprisingly Scotland Women's opposition during competitive matches was another unpredictable contextual factor that influenced the coaching process. Karen tried to prepare for the unique challenge posed by each team by undertaking video analysis of the opposition's previous matches. Karen's use of opposition analysis mirrored previous findings (e.g., Groom *et al.*, 2011; Nelson and Groom, 2011) by including reference to their tactics, strengths and weaknesses, which then informed her team selection, specific match strategies and other aspects of the organisation and preparation settings. For example, Karen explained how she might alter the kicking strategy for different teams based upon the strength of their counter attack, and that the players would practice specific strategies during the final training session, the day before each match:

"There will be certain opposition where we might say... given the quality of the back-three, we are definitely not going to be looking to kick – given our inability to accurately put ball in behind certain back-three at the moment, because of inadequacies in our kicking technique. Whereas, against Italy, we might say, 'Actually, no, we are going to try kicking today'. So, there will be changes." (Interview 2)

"The things that we're identifying [in the video analysis] have huge bearings on what we're then going to do in the [final] practice session: in terms of the things we're going to do [in attack], but also, particularly, the defensive effort. Just stop them doing what we've identified we think they might do." (Interview 13)

However, just as Karen wanted to target the opposition's weaknesses, so too the other teams tried to exploit Scotland Women's limitations:

"Obviously the opposition will have watched us. And they might say, 'Well, actually we're going to do *this*, this weekend'. Ireland had a really good... I mean, they were a classic example. They suddenly went, 'there is no way we want to have the ball on the floor and get into a rucking game against Scotland Women. We will move them completely about every area of the field instead'." (Interview 13)

Indeed, the game of tactical cat and mouse carried over into the competitive setting, which meant that Karen had to be adaptable and respond to the particular strengths and weaknesses being displayed by both Scotland Women and the opposition during a match. Thus, the strategies in use were continually evolving as Karen responded to the match in progress and passed messages to the players directly and via her associates at pitch-side:

"We might have spotted something about the opposition. We might have had a game plan, and every game plan is great until the first contact with the enemy. If suddenly their defensive pattern has changed or they've suddenly adapted... I need to change it and I need to get that message on." (Interview 7)

In this way, Karen's monitoring during matches reflected a number of the interactive decision making factors including objective and subjective information that underpin adaptable coaching practice identified by Gilbert *et al.* (1999 see 2.4.2: *Relatively Dynamic Contextual Factors*). Moreover, what she says in the above quote indicates that she will take the most active role in responding to changing tactical circumstances during competition, when her stated intentions were actually to empower players to make decisions on the pitch (see 4.3.2: *The Coach's Role Frame*) and as it will be shown that she struggled to directly influence players during matches (see 5.5.2.1: *Observation*).

The final example of extraneous factors that shaped the coaching process was the Six Nations Championship competition rules. The rules created time pressures and other challenges that constrained Karen's coaching practice. For example, from the organisation setting, the team had to name their selected players in the media in advance of each match. On some occasions, this meant including or excluding an injured player who was awaiting a fitness test, who might then be declared fit or unfit to play later that same week. On another occasion, it brought disagreement between Karen and her assistant coaches about whether the pre-selected team should

specifically practice together in advance of their usual Captain's Run the day before a game:

"The coaches were up until around 11:30 tonight having meetings about selection. Each member of the management is given the opportunity by Karen – who heads the meeting – to give input or make point. They provisionally decide selection for the England game. It seems that the Six Nations Championship committee sets a schedule for when the teams must be officially named in the media. Karen stated that having a team selected now will allow them to use their starting team together in training tomorrow. There seems to be a small issue, however, between the coaches on this point. [Assistant Coach], in particular, wants the players to have, 'A fair go in training'. In other words, it may be obvious during tomorrow's training who the selected players are, even though they are not due to find out the starting team until Monday evening. Karen says, 'There's no time for sensibilities about players' feelings around this matter tomorrow, they've just got to get on with it.'" (Fieldnotes, TW3)

In the competition setting, a challenge for Karen was the rule that insisted each team's head coach must sit in a predefined area of the stadium, away from the pitch side. In a casual conversation, Karen explained that she would rather watch the match from the end of the pitch as it gave a better vantage point to see the opposition's tactical approach. This point was reiterated during interview seven:

"I think the biggest thing for me in the Six Nations Championship last year and going into this has been, I find it really difficult to be not... I would much prefer to be looking down field. The competition rules don't let you do that. In a lot of my other coaching I'm up here behind the posts." (Interview 7)

Finally, a related issue was that, by not being pitch-side, Karen had to radio the team manager, who was allowed to be there, to make substitutions. The team manager then had to fill in a form and hand it to the fourth official before a substitution could be made at the next break in play. For Karen, this process often took too long, meaning that she had tired players on the pitch for longer than she wanted:

"[Team Manager]'s is thinking about substitutions. She's got to give the fourth official time to get the substitution made: who's coming on, who's coming off. She's got to record the time they go on. There's a lot of things, I suppose, admin, bureaucracy wise she's got to do, and sometimes I'm like, 'I need that person... I need them on' or, 'I need them off'." (Interview 7)

4.4: SUMMARY

In pursuit of the objectives of the research, this chapter has presented a grounded model as a heuristic device to introduce the multifarious factors that comprised the coaching process. Its contribution to this context-specific case study has been to focus on how the coaching process worked as a complex, interactive activity. Moreover, it has highlighted the intentions, perceptions and meanings Karen

developed in undertaking that activity, particularly in coping with its complexity, which influenced her practice (Miller and Cronin, 2012). It is hoped that by introducing the grounded model in this way the reader will now understand the *who*, *when* and *where* of the coaching process, as well as some of the origins of complexity and holism in the challenging, negotiated and contested interrelationship between coach, associates and context.

The present findings extend those of previous, similar conceptualisations (e.g., Smoll and Smith, 1984; Côté *et al.*, 1995c) by detailing a variety of associates with whom Karen was engaged, and by exploring the complexity of their interactions as a constituent feature of the coaching context. For example, whilst Karen was undoubtedly the central authority in Scotland Women, her interpersonal relationships were also characterised by tensions and conflicts arising from idiosyncratic roles, beliefs, values and goals (Jones and Wallace, 2006). Thus, the head coach's role was found to be highly sophisticated but also negotiated. Moreover, rather than simply being static "factors to be considered" (Côté *et al.*, 1995c), the coaching context was a complex, dynamic, pervasive and encompassing frame within which the coaching process and Karen's coaching practice took place. Indeed, the challenges highlighted in this chapter that Karen encountered in her role as head coach help to explain some of the inconsistencies in her practice detailed in the chapter that follows.

The present findings also support previous research where coaches were reported to operate with "few concrete role descriptions" (Gilbert and Trudel, 2004b p.21). Similarly, Karen was found to have refined her approach within the social coaching context, which integrated various formal and informal needs and expectations, as well as her personal knowledge and coaching philosophy. Furthermore, despite an almost obsessive commitment to planning, Karen's complex and ever-changing circumstances meant that the coaching process was largely unstructured (Nash *et al.*, 2008), suggesting the necessity of an adaptable pedagogy in practice (Jones and Wallace, 2005). Moreover, the findings add to limited existing research that has explored specific instances of role conflict (e.g., Bringer, Brackenridge and Johnston, 2002; Bringer *et al.*, 2006), particularly by detailing Karen's attempts to prepare for, control and resolve the many challenges she faced.

In advance of more detailed descriptions and analysis of Karen's practice in *Chapter 5*, this chapter has identified a number of clear intentions arising from her coaching philosophy. Specifically, Karen intended to be person-centred by responding to her associates' needs and empowering them to make decisions that shaped the coaching process. Relatedly, she linked the use of questioning behaviours to the empowerment approach. Furthermore, Karen espoused the Game Sense approach to coaching, which emphasises the development of tactical understanding by using game-like training activities (Light, 2013). Moreover, she identified several core values that were linked to specific coaching behaviours. These included her desire for honesty, which was related to the amount of praise she would give, and a belief in not scolding players for mistakes, which she believed should instead be treated as positive opportunities for learning. However, Karen also highlighted that her sensitivity to individual circumstances militated against the unrestricted implementation of her philosophy. Thus, she believed that coaching was a balance; too much questioning or praise would have negative consequences, and there would be times when reprimands were necessary.

Though presented separately in this chapter for clarity and to aid description, it was the coalescence of personal, social and contextual factors that made the coaching process a complex, holistic and dynamic undertaking. Consequently, even at a broad level, as the principle observable phenomena of the coaching process, Karen's social practice was found to be infused with personal agency and social structure. Indeed, as Lemert (2012) noted of social life, Karen's practice was "simultaneously a result of social rules and of [her] own individual flourishes" (p.42). For example, Karen's intention was to empower and engage her associates, but, at the same time, she perceived an expectation that the head coach should lead decisively and bring structure to the coaching environment. Therefore, Karen's coaching practice was an inescapable product of the social conditions of her experiences (Bourdieu, 1991). As such, Karen's habitus – "her acquired system of generative dispositions" (Bourdieu, 1977 p.95 – was understood to both be shaped by practice and, also, the shaper of practice. It is to the more specific and detailed description and explanation of Karen's actual coaching practice that I now turn.

WHAT, HOW AND WHY: THE COACH'S PRACTICE

5.1: INTRODUCTION

Having established a broad picture of the coaching process in *Chapter 4*, this chapter examines the nature of the interactions of its constituent factors and their properties at the micro-level of coaching practice. Specifically, building upon the understanding of Karen's coaching philosophy, knowledge, role frame, planning, intentions and social context, established largely through interviews and observations early on in my time in the field, this chapter reports *what* Karen actually did, *how* she did it and *why*. Accordingly, following the methods outlined in *Chapter 3*, this chapter is structured such that first descriptions of Karen's practice are drawn from fieldnotes, video and audio recordings, and extensively from data collected through systematic observation (see Table 2.0). This should help to establish for the reader a vivid picture of *what* Karen did in the various settings of the coaching process as well as *how* she conducted her practice over time. A critical discussion and analysis of Karen's practice is then developed, based principally upon the stimulated recall interviews and with reference to relevant literature, but also drawing upon the broader methods of the ethnographic framework. The focus here is on understanding *why* Karen did *what* she did and *how* she did it. Therefore, following the approach advocated by Cushion *et al.* (2012b) this chapter attempts to connect Karen's knowledge, philosophy and role frame to her behaviours, activities and experiences by examining the coaching process during and after practice. In terms of addressing the objectives of this research, this chapter identifies the impact of the constituents of the coaching process on coaching practice.

5.2: ON-PITCH ACTIVITIES

Of the 2083.83 min of on-pitch activity recorded across the whole season, training days accounted for 67.62% and match days for 32.28% of Karen's work with Scotland Women. The mean duration of training sessions was 100.65±36.23 min, which included an average of 10.07±5.93 min of fitness activity, 7.98±14.58 min of technical activity, 23.45±22.22 min of skills activity, 44.52±22.00 min of phase of

play activity and 14.33 ± 18.58 min of conditioned games activity. No small-sided games were used during the season⁴. Therefore, training sessions were predominantly comprised of Playing Form activities (58.47%), with less time spent in Training Form activities (41.53%). The durations of each sub-activity type during every training day of the whole season are shown in *Figure 4.0*, which highlights the variance in training session duration and time spent in individual activities across the season. For example, it is notable that training sessions were on average shorter on the days immediately before competitive matches (68.6 min) than at other times (124.7 min).

On match days, competitive match play was always preceded by a distinct warm up. Mean match day warm ups lasted for 24.03 ± 4.40 min, and included an average of 5.88 ± 1.55 min of fitness activity, 3.30 ± 1.77 min of technical activity, 9.25 ± 1.85 min of skills activity and 5.5 ± 2.52 min of phase of play activity. No small-sided games activity or conditioned games activity was included in match day warm ups. On average, match play lasted for 88.53 ± 5.52 min⁵. Thus, Training Form activities (16.48%) and Playing Form activities (4.89%) accounted for a much smaller proportion of match day activities than match play itself (78.72%). The durations of each sub-activity type during every match day of the whole season are shown in *Figure 5.0*.

5.3: ON-PITCH BEHAVIOURS

As illustrated in Table 4.0, a total of 10,262 event and 23,550 interval behaviours were coded in Focus X2 from 1031.15 min of video and audio recordings of Karen during the season. Overall, Karen's most frequent behaviour type was observation (22.14%), while conferring with associates (15.38%), management (10.56%), questioning (5.88%) and concurrent instruction (5.85%) were also among her most prevalent behaviours. Karen's interval behaviours ranked in a slightly different order. Overall, Karen spent the most time in observation (30.78%), conferring with

⁴ No small-sided games were coded, partly because Scotland Women's squad was large enough for two full teams of players to be available most of the time and because when groups of less than 15 players were used, the conditions (rules) of the activity were also changed, meaning the activity was coded as a conditioned game rather than a small-sided game according to the RCABI.

⁵ This includes time added for injuries and stoppages, in addition to the standard 80.00 min of play required by rugby Union's laws.

associates (23.29%), management (7.38%), questioning (6.34%) and correction (5.81%). This shows that although Karen engaged in concurrent instruction more often than she offered correction, it took up less time. Karen's least common behaviours throughout the season were praise (general) (0.15% event; 0.09% interval), scold (general) (0.23% event; 0.16% interval), concurrent scold (0.44% event; 0.18% interval), negative demonstration (0.54% event; 0.27% interval) and use of humour (0.68% event; 0.30% interval).

Karen's behaviours were found to vary according to their context. At a broad level her behaviour differed notably between training days (preparation setting) and match days (competition setting). For example, Karen spent proportionally more time giving preinstruction during preparation (4.37%) than competition (1.55%). Similarly, more time was spent in technical explanation (preparation 6.29%; competition 1.08%), correction (preparation 7.88%; competition 1.41%), questioning (preparation 8.96%; competition 0.76%) and management (preparation 8.84%; competition 4.27%) during training than on match days. Conversely, conferring with associates (preparation 19.70%; competition 30.94%), other (preparation 1.26%; competition 3.84%), observation (preparation 26.29%; competition 40.35%) and commentary (preparation 0.89; competition 7.56%) accounted for a much greater proportion of Karen's interval behaviours during match days than in training.

At a more micro-contextual level, behavioural variation was also found between the activity sub-types of the RCABI. Table 5.0 shows the behavioural data as a function of its activity context. For example, names were used more frequently during skills activity (1.9 per min) than fitness activity (0.5 per min), while conferring with associates occurred less regularly during skills activity (0.5 per min) than any other activity (fitness 1.1 per min; technical 1.1 per min; phase of play 1.2 per min; conditioned games 1.2 per min; competitive match 2.4 per min). Furthermore, time (interval) spent giving concurrent praise was greatest during technical activity (4.3%) than at any other time (fitness 0.5%; skills 1.2%; phase of play 0.8%; conditioned game 1.9%; competitive match 0.3%) and scold (skill) was rarely used in fitness (0.0%), technical (0.5%) and competitive match (0.0%) activities, compared to skills (2.8%), phase of play (3.8%) and conditioned games (4.2%) activities.

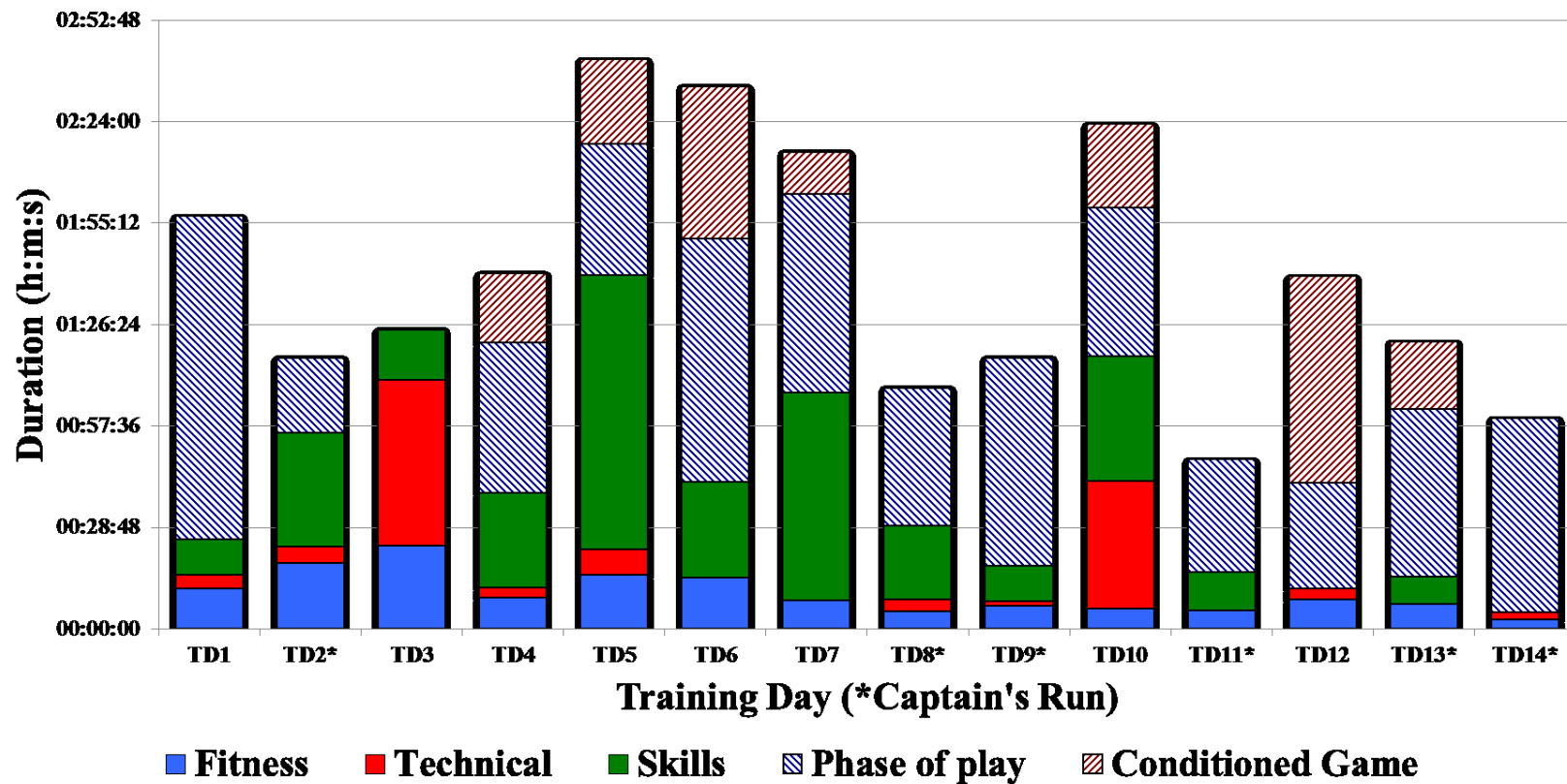


Figure 4.0 Duration [hours, minutes and seconds (h:m:s)] spent in Fitness, Technical, Skills, Phase of play and Conditioned game activities during each day of training (TD).

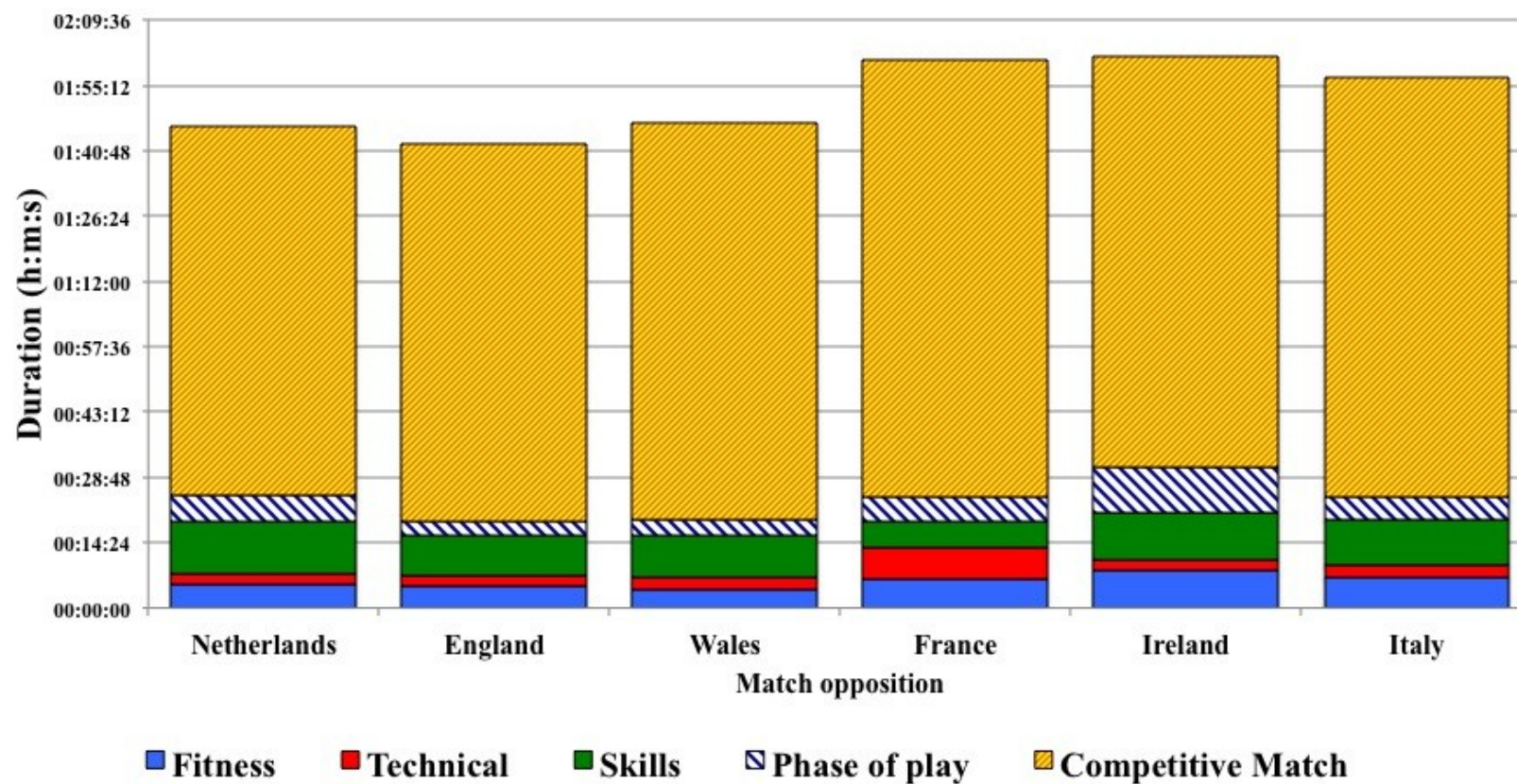


Figure 5.0 Duration [hours, minutes and seconds (h:m:s)] spent in Fitness, Technical, Skills, Phase of play and Competitive match activities during each match day (by opposition).

Table 4.0 Overall event and interval behaviours used by Karen during all activity types [total behaviours, percentage of behaviours (%), standard deviation (SD), rate per minute (RPM), rank].

	Event					Interval				
	Total	%	SD	RPM	Rank	Total	%	SD	RPM	Rank
Use of name*	1324	14.81	40.80	1.28	*	1324	5.96	40.80	1.28	*
Preinstruction	286	3.20	13.54	0.28	10	771	3.47	34.21	0.75	7
Technical explanation	269	3.01	19.11	0.26	11	1028	4.63	58.86	1.00	6
Concurrent instruction	523	5.85	17.41	0.51	5	592	2.66	19.11	0.57	9
Concurrent positive feedback	134	1.50	7.30	0.13	17	136	0.61	7.36	0.13	17
Concurrent praise	337	3.77	12.05	0.33	9	345	1.55	12.61	0.33	13
Concurrent correction	204	2.28	8.59	0.20	14	230	1.03	8.97	0.22	14
Concurrent scold	39	0.44	2.01	0.04	21	40	0.18	2.15	0.04	21
Positive skill specific feedback	140	1.57	6.07	0.14	16	200	0.90	10.53	0.19	16
Praise at skill attempt	223	2.49	14.68	0.22	13	225	1.01	14.99	0.22	15
Scold (skill)	225	2.52	14.75	0.22	12	464	2.09	37.15	0.45	10
Correction	520	5.82	22.80	0.50	6	1291	5.81	60.86	1.25	5
Questioning	526	5.88	31.66	0.51	4	1409	6.34	101.43	1.37	4
Positive demonstration	82	0.92	8.30	0.08	18	103	0.46	11.20	0.10	18
Negative demonstration	48	0.54	4.59	0.05	20	60	0.27	5.74	0.06	20
Hustle	385	4.31	15.37	0.37	8	416	1.87	18.17	0.40	12
Praise (general)	13	0.15	1.00	0.01	23	21	0.09	2.22	0.02	23
Scold (general)	21	0.23	2.38	0.02	22	35	0.16	5.09	0.03	22
Use of humour	61	0.68	4.66	0.06	19	67	0.30	5.12	0.06	19
Management	944	10.56	39.96	0.92	3	1640	7.38	64.38	1.59	3
Conferring with associates	1375	15.38	83.07	1.33	2	5177	23.29	210.27	5.02	2
Other	160	1.79	13.93	0.16	15	463	2.08	40.93	0.45	11
Observation	1979	22.14	73.55	1.92	1	6842	30.78	273.56	6.64	1
Commentary	444	4.97	51.14	0.43	7	671	3.02	83.65	0.65	8
Total	10262	100		9.95		23550	100.00		22.8	
Total minus *	8938					22226				

Table 5.0. Event and interval behaviours used by Karen during Fitness, Technical, Skills, Phase of play, Conditioned game and Competitive match activities [total behaviours, percentage of behaviours (%), standard deviation (SD), rate per minute (RPM), rank].

	Event Behaviours																			
	Fitness					Technical					Skill					Phase of play				
	Total	%	SD	RPM	Rank	Total	%	SD	RPM	Rank	Total	%	SD	RPM	Rank	Total	%	SD	RPM	Rank
Use of name*	46	12.50	5.72	0.47	*	49	13.32	4.25	1.78	*	484	18.09	39.26	1.94	*	426	18.35	36.74	1.71	*
Preinstruction	11	2.99	1.46	0.11	7	12	3.26	1.86	0.44	11	91	3.40	6.69	0.36	11	128	5.51	13.00	0.51	7
Technical explanation	0	0.00	0.00	0.00	19	8	2.17	1.37	0.29	12	141	5.27	14.86	0.56	7	89	3.83	8.99	0.36	8
Concurrent instruction	11	2.99	1.34	0.11	7	21	5.71	2.14	0.76	8	119	4.45	14.08	0.48	9	193	8.31	12.80	0.77	4
Concurrent positive feedback	2	0.54	0.38	0.02	14	6	1.63	1.17	0.22	13	61	2.28	5.20	0.24	14	28	1.21	3.06	0.11	17
Concurrent praise	19	5.16	2.15	0.19	5	37	10.05	3.18	1.34	3	160	5.98	11.87	0.64	6	64	2.76	5.38	0.26	11
Concurrent correction	9	2.45	1.18	0.09	10	24	6.52	2.66	0.87	6	66	2.47	6.64	0.26	13	41	1.77	2.78	0.16	13
Concurrent scold	1	0.27	0.28	0.01	17	3	0.82	0.62	0.11	17	13	0.49	1.38	0.05	21	12	0.52	1.28	0.05	21
Positive skill specific feedback	1	0.27	0.28	0.01	17	4	1.09	0.65	0.15	15	61	2.28	4.12	0.24	14	37	1.59	3.20	0.15	14
Praise at skill attempt	3	0.82	0.44	0.03	13	21	5.71	3.22	0.76	8	137	5.12	14.14	0.55	8	32	1.38	2.23	0.13	15
Scold (skill)	0	0.00	0.00	0.00	19	2	0.54	0.39	0.07	18	74	2.77	6.91	0.30	12	89	3.83	8.75	0.36	8
Correction	4	1.09	0.75	0.04	12	29	7.88	4.54	1.05	5	232	8.67	18.83	0.93	3	173	7.45	14.96	0.69	5
Questioning	12	3.26	0.95	0.12	6	22	5.98	3.10	0.80	7	228	8.52	26.52	0.91	4	169	7.28	15.29	0.68	6
Positive demonstration	2	0.54	0.55	0.02	14	6	1.63	1.73	0.22	13	53	1.98	7.05	0.21	16	13	0.56	2.87	0.05	20
Negative demonstration	0	0.00	0.00	0.00	19	4	1.09	1.15	0.15	15	19	0.71	2.87	0.08	20	18	0.78	2.88	0.07	18
Hostile	27	7.34	3.62	0.27	4	17	4.62	1.83	0.62	10	181	6.77	13.41	0.72	5	74	3.19	5.39	0.30	10
Praise (general)	0	0.00	0.00	0.00	19	0	0.00	0.00	0.00	23	3	0.11	0.45	0.01	23	7	0.30	1.08	0.03	23
Scold (general)	0	0.00	0.00	0.00	19	2	0.54	0.58	0.07	18	5	0.19	0.67	0.02	22	12	0.52	2.00	0.05	21
Use of humour	2	0.54	0.38	0.02	14	1	0.27	0.29	0.04	20	32	1.20	3.55	0.13	17	14	0.60	2.08	0.06	19
Management	63	17.12	4.00	0.64	3	40	10.87	4.08	1.45	2	374	13.98	25.96	1.50	2	288	12.40	24.38	1.15	3
Conferring with associates	107	29.08	5.34	1.08	1	30	8.15	3.55	1.09	4	119	4.45	9.98	0.48	9	307	13.22	28.52	1.23	2
Other	11	2.99	1.34	0.11	7	1	0.27	0.29	0.04	20	26	0.97	2.55	0.10	19	31	1.34	5.76	0.12	16
Observation	74	20.11	4.71	0.75	2	77	20.92	6.27	2.79	1	450	16.82	28.50	1.80	1	457	19.68	37.33	1.83	1
Commentary	9	2.45	1.03	0.09	10	1	0.27	0.29	0.04	20	30	1.12	3.06	0.12	18	46	1.98	4.28	0.18	12
Total	414	100.00		4.19		417	100.00		15.12		3159	100.00		12.64		2748	100.00		11.01	
Total minus *	368					368					2675					2322				

	Interval Behaviours																			
	Fitness					Technical					Skill					Phase of play				
	Total	%	SD	RPM	Rank	Total	%	SD	RPM	Rank	Total	%	SD	RPM	Rank	Total	%	SD	RPM	Rank
Use of name*	46	2.34	5.72	0.47	*	49	5.47	4.25	1.78	*	484	8.96	39.26	1.94	*	426	7.56	36.74	1.71	*
Preinstruction	24	1.22	3.93	0.24	7	46	5.14	8.91	1.67	5	268	4.96	24.99	1.07	7	262	4.65	19.85	1.05	7
Technical explanation	0	0.00	0.00	0.00	19	22	2.46	4.69	0.80	10	491	9.09	53.54	1.96	4	355	6.30	30.32	1.42	6
Concurrent instruction	14	0.71	1.71	0.14	9	26	2.91	2.86	0.94	9	134	2.48	15.12	0.54	11	217	3.85	14.65	0.87	8
Concurrent positive feedback	2	0.10	0.38	0.02	15	6	0.67	1.17	0.22	15	63	1.17	5.26	0.25	17	28	0.50	3.06	0.11	17
Concurrent praise	19	0.96	2.15	0.19	8	38	4.25	3.24	1.38	6	164	3.03	12.12	0.66	9	66	1.17	5.65	0.26	12
Concurrent correction	10	0.51	1.30	0.10	11	38	4.25	4.45	1.38	6	66	1.22	6.64	0.26	16	44	0.78	2.99	0.18	15
Concurrent scold	1	0.05	0.28	0.01	17	3	0.34	0.62	0.11	17	13	0.24	1.38	0.05	21	13	0.23	1.44	0.05	21
Positive skill specific feedback	1	0.05	0.28	0.01	17	8	0.89	1.72	0.29	14	76	1.41	5.30	0.30	13	58	1.03	4.99	0.23	13
Praise at skill attempt	3	0.15	0.44	0.03	13	21	2.35	3.22	0.76	11	139	2.57	14.46	0.56	10	33	0.59	2.22	0.13	16
Scold (skill)	0	0.00	0.00	0.00	19	2	0.22	0.39	0.07	19	126	2.33	13.85	0.50	12	201	3.57	20.75	0.81	9
Correction	4	0.20	0.75	0.04	12	71	7.93	10.93	2.57	4	486	8.99	41.11	1.94	6	500	8.87	43.16	2.00	3
Questioning	32	1.63	3.82	0.32	5	38	4.25	5.65	1.38	6	652	12.07	92.96	2.61	2	424	7.53	40.28	1.70	4
Positive demonstration	2	0.10	0.55	0.02	15	11	1.23	2.61	0.40	13	68	1.26	9.18	0.27	15	13	0.23	2.87	0.05	21
Negative demonstration	0	0.00	0.00	0.00	19	6	0.67	1.73	0.22	15	22	0.41	3.19	0.09	20	24	0.43	3.52	0.10	19
Hostile	32	1.63	4.45	0.32	5	17	1.90	1.83	0.62	12	193	3.57	14.67	0.77	8	81	1.44	5.75	0.32	10
Praise (general)	0	0.00	0.00	0.00	19	0	0.00	0.00	0.00	23	3	0.06	0.45	0.01	23	10	0.18	1.64	0.04	23
Scold (general)	0	0.00	0.00	0.00	19	3	0.34	0.87	0.11	17	5	0.09	0.67	0.02	22	25	0.44	4.81	0.10	18
Use of humour	3	0.15	0.60	0.03	13	1	0.11	0.29	0.04	21	35	0.65	4.23	0.14	19	15	0.27	2.14	0.06	20
Management	336	17.06	23.73	3.40	3	118	13.18	18.04	4.08	3	577	10.68	38.62	2.31	3	377	6.69	33.46	1.51	5
Conferring with associates	1068	54.24	66.75	10.82	1	146	16.31	21.06	5.29	2	488	9.03	70.72	1.95	5	1049	18.62	93.38	4.20	2
Other	52	2.64	6.51	0.53	4	1	0.11	0.29	0.04	21	72	1.33	9.37	0.29	14	72	1.28	13.03	0.29	11
Observation	352	17.88	26.83	3.57	2	271	30.28	31.09	9.83	1	1227	22.71	85.07	4.91	1	1711	30.37	145.24	6.85	1
Commentary	14	0.71	1.85	0.14	9	2	0.22	0.58	0.07	19	36	0.67	3.93	0.14	18	56	0.99	5.42	0.22	14
Total	2015	100.00				944	100.00				5888	100.00				6060	100.00			
Total minus *	1969					895					5404					5634				

5.4: OFF-PITCH ACTIVITIES AND BEHAVIOURS

The four main categories of off-pitch activities identified were staff meetings, team meetings, player meetings and team talks. Staff meetings usually took place prior to and at the end of training and match weekends. Staff meetings were generally attended by Karen, the performance manager, assistant coaches, team manager, doctor, physiotherapist and strength and conditioning coaches. Pre-training staff meetings focused on the final amendment of practice plans between the coaches; the sharing and revision of daily itineraries, travel and accommodation plans by the team manager; the reporting of interim squad fitness and rehabilitation results by the strength and conditioning coaches; injury and rehabilitation updates from the medics; and any general points from the performance manager. Meetings held at the start of match weekends covered similar topics, but with greater specificity to the players selected for Scotland Women and to the competition rules; thus, no fitness test results were reported and attention was given to the match day itinerary. Post-training and post-match staff meetings included injury updates from the medics; the agreement of actions to be carried out with players by the strength and conditioning coaches; a preliminary discussion of team selection for the next match, to be finalised later in the week (during the Six Nations Championship); or a discussion about the content of the next training weekend (outwith the Six Nations Championship).

Team meetings involved all members of staff and all players. Team meetings held during training weekends included the descriptive introduction of new skills or tactics by the coaches; player briefings by members of staff and invited specialists including talks on itineraries, nutrition, hydration, doping awareness, injury management, team values, and revised law interpretations; the announcement of team selections; and the review of match or training footage. Team meetings held on match weekends included briefings on itineraries; the pre-match analysis of opposition video footage; reviews of match-specific skills or tactics by the coaches; and the post-match review of video footage and performance analysis.

Player meetings included only the players and coaches, either on a one-to-one basis or as small groups specific to playing position (e.g., forwards; front-row), match function (e.g., kickers; substitutes) or status (e.g., senior player group; team

leaders). Such meetings were usually held for the purposes of reviewing previous performances, goals and progress; planning for predicted playing conditions (e.g., weather; opposition strengths and weaknesses); reflecting upon squad morale; gaining players' perceptions on the coaching process; and addressing player concerns or issues.

Finally, team talks were specific only to match days. Team talks usually took place in the privacy of the changing room, though some were spontaneously held on the pitch. Team talks involved: the gathering of players and staff for last-minute reminders, motivational messages and clarification or revision of specific tactics and strategies before the match; the review of performance and the provision of instruction, correction and motivational messages at half time; and the summation of performance, with highlighted key points following the match.

5.5: DISCUSSION

Reporting both quantitative and qualitative data collected longitudinally, from on- and off-pitch settings and during preparation and competition presents a challenge. Specifically, it is impossible within the limits of this thesis to discuss and elaborate on all aspects of Karen's coaching practice. Consequently, the following discussion is necessarily selective. The aspects of coaching practice discussed were chosen for three reasons: for their ability to address the objectives of this research (*see 1.2: Research Aims*; i.e., their relevance to and further elaboration upon features of the grounded model); to explore areas not previously discussed in depth in the extant literature; and to identify ways in which coaching research may be further enhanced as a result of the present findings.

5.5.1: COACHING ACTIVITIES

5.5.1.1: TRAINING SESSIONS: IMPLEMENTING A GAME SENSE APPROACH?

Karen's stated coaching philosophy included an explicit intent to implement a Game Sense approach (*see Chapter 4*). But, how closely did her coaching practice reflect this theory of action? Although there are no comparable data specific to rugby union, research from other team sports has found that athletes generally spend more time

during training sessions in what Ford *et al.* (2010 p.492) described as “less relevant” Training Form activities than “more relevant” Playing Form activities (Ford *et al.*, 2010; Harvey *et al.*, 2013; Low *et al.*, 2013; Partington and Cushion, 2013; Partington *et al.*, 2014). Here, relevance was used to express how closely training related to actual performance in competition (Ford *et al.*, 2010). According to the literature, the use of game-like, Playing Form activity in the Game Sense approach (see Light, 2013) is predicated upon the belief that the greatest improvements in performance will be achieved when the physiological and cognitive demands of training closely replicate the demands of competitive play (Gabbett, Jenkins and Abernethy, 2009). Karen spent an average of 58.47% of training sessions coaching Playing Form activities, which is a greater proportion of practice time than most of the previous literature found, but similar to a small number of coaches in Partington and colleagues’ (2014) study of professional youth soccer. Furthermore, the per-session proportion of Karen’s time devoted to Playing Form activities was found to increase as the season progressed towards its main period of competition, the Six Nations Championship. Specifically, the mean proportion of training time spent in Playing Form activities across the first four training days was 46.10%, which increased to 64.20% across the middle four training days and to a peak average of 83.75% over the final four training days of the season. Compared to the collegiate, recreational or developmental levels examined in the other research highlighted, where the ongoing introduction and improvement of skills and techniques might be a greater focus (Trudel and Gilbert, 2013), the present findings reflected the importance of preparing Scotland Women’s elite players for performance in competition.

Given the prevailing concern about a predominance of Training Form activities in traditional coaching practice (e.g., Ford *et al.*, 2010; Cushion *et al.*, 2012b), Karen’s implementation of a greater proportion of Playing Form activities might easily be heralded as exemplary. Indeed, aside from a warm up (led by one of the strength and conditioning coaches), TDs 12, 13 and 14 included no Training Form activity at all, and instead reflected Game Sense concepts by including various modified games (Light and Evans, 2010). Thus, Karen’s practice would appear to demonstrate stronger alignment to the Game Sense philosophy than Partington and

Cushion (2013) and Harvey *et al.* (2013) found with their coaches. Indeed, Karen was clearly aware of the need to make training as game-like as possible:

“One of our objectives is to improve their game awareness and their game sense. How do we do that? In terms of the content of our coaching, in the delivery of our coaching, we do that through game-related scenarios, and we do that to create the same kind of situation, same pressures [as a match].”
(Interview 13)

However, this did not mean the exclusion of Training Form activities from Karen’s coaching all together. In fact, Karen was quick to defend her inclusion of Training Form activities. Giving examples of other well-known rugby coaches she had observed, Karen clearly believed drills had an important part to play in top-level international rugby union coaching:

“I watched the All Blacks, looking at clear out [technique] in a very simple little drill, to then big old twelve versus eight [game], back into the little drill. And they started with a little drill. Now that probably goes against every coaching manual that’s being written just now, or anything [coach education course] I’ve been on recently where they’re like, ‘Oh, game-based, game-based...’ Well it wasn’t all game based, and that was Graham Henry and he’s just won a World Cup.”
(Interview 6)

In fact, the present data showed that a considerable amount of time, on average 41.80 ± 30.50 min⁶ per session, was spent in Training Form activities. Thus, during some of Karen’s training sessions, a more traditional, linear approach to coaching was evident. For example, the description of activities in Table 6.0, taken from TD4, reflects a pattern of sequential progression, from Training Form to Playing Form activities.

Table 6.0. Microstructure and duration of activities (according to the RCABl) during the morning session on TD4.

Start of session	
Fitness	03min 51sec
Fitness	02min 58sec
Technical	02min 48sec
Fitness	02min 05sec
Skills	26min 55sec
Conditioned game	19min 46sec
Phase of play	42min 32sec
End of session	

This profile is similar to the linear approach characterised by Cassidy *et al.* (2009), in which skills were practised before games were played. Consequently, when viewed

⁶ Some of these Training Form activities comprised part of the warm up.

as a whole, Karen's coaching practice was an example of both traditional and non-traditional approaches to coaching.

The traditional, linear coaching style has been accused of lacking concern for the needs of the players (e.g., Harvey *et al.*, 2013). Additionally, Williams and Hodges (2005) criticised the linear approach because coaches usually progress slowly from initial Training Form activities to subsequent Playing Form activities. Furthermore, Training Form activities, described as "drills", typical of the linear approach, have been characterised as simple, unopposed and technically focused, and with no inherent decision-making required (Rink, 2005; Passos *et al.*, 2008; Gabbett *et al.*, 2009). These features of traditional coaching are thought to facilitate the predictability of successful skill performance, but ironically, to also limit players' adaptability in the dynamic and unpredictable environment of competition (Passos *et al.*, 2008). In other words, through repeated drill-based training, players may perfect a successful solution (e.g., running, passing, kicking) to a set of consistent circumstances (e.g., position relative to a defender), but be unable to adapt similarly successful performance outcomes when presented with variable sets of circumstances in competition (e.g., different defender positioning). In summary, the research suggests that cognitive, perceptual and motor skills developed during Training Form activities will lack utility in the competitive setting, compared to those developed in Playing Form activities.

The findings challenge some popular assumptions associated with Game Sense and linear approaches to coaching; firstly, that activities typically classed as Training Form are inherently not game-like and, therefore, less worthy than Playing Form activities. Karen's skills practices, which accounted for 56.8% of all Training Form activity, were always opposed (included defenders), requiring the attacking and defending players to make decisions about how they moved within the space provided. Furthermore, to avoid players encountering the same circumstances each time, Karen took steps to bring about dynamic constraints, otherwise unique circumstances, during the players' repetitions of a drill. For example, reflecting the factors evident in Passos and colleagues' (2008) description of a ubiquitous 2v1 situation in a rugby match, Karen asked players to adopt different starting points, to create variable proximity and approach speeds between attackers and defenders,

attackers and attackers, and defenders and defenders, as well as varying the relationship of the ball's starting point to boundary markers including the try lines and side lines. Thus, during a group's or player's multiple iterations of the same drill, they would experience different constraints or contextual interference for which they would have to develop nuanced performance solutions. Such variability in the practice environment is positively linked to long-term skill learning (Lawrence, Kingston and Gottwald, 2013), but is most often associated with game-based approaches and contrasted with more traditional practice structures (e.g., Breed and Spittle, 2011).

In contrast to Williams and Hodges' (2005) concern for slow progressions in the linear approach, Karen also kept the duration of individual Training Form activities (technical and skills) relatively short, on average 6.78 min before a change occurred; whilst Playing Form activities lasted much longer (a mean duration of 22.55 min) before progression. Furthermore, on average, for every 1.00 min spent in Training Form activity, 2.40 min was spent in Playing Form activity. Explaining this, Karen described how it was important to train in match-like conditions, in order to prepare players for international matches:

"You're wanting them to realise, in this scenario [during a match], 'This is what we need to be thinking about'. So there's absolutely no point, there's no point in not making it game related... the more game related stuff we've been able to do, the quicker we've made progress in terms of the preparation to play internationals." (Interview 19)

Moreover, Karen highlighted a specific way in which she tried to make all activities more match relevant:

"[Assistant Coach] will say, 'Right, let's get them in and speak' and I'm like, 'But they've only been doing it a minute and a half'. I'm like, 'Let them run it'... make it game relevant. So say, 'We are going to go live for four minutes', because that's pretty much relevant to women's rugby [matches] in terms of segments before something goes wrong, or three and a half or whatever. Set a time to it and no matter how bad it is, let it run to that time period." (Interview 10)

"In general, we're just going to play five phases. We're going to stand back and let them play, because the urge is for people to go, 'We didn't do that right'. Like [Assistant Coach], I'm always on at [Assistant Coach] saying, 'Let it run three minutes then we'll speak about it'. I think I've said that to you before where I've been like really conscious, like even if it's maybe tickety boo, I think you've got to just still let them play." (Interview 14)

Thus, Karen expected players to repeatedly defend and attack in a drill or to play in a game-like activity for a duration that reflected the time they would defend or attack

during competition. Field observations supported Karen's assertion that she tried to reflect the temporal nature of competition during skills activity by requiring a given number of phases or a set duration to elapse between repetitions. Relatedly, it was of note that during the Six Nations Championship 95% of play leading to tries included five phases or less (International Rugby Board, 2012), giving some credence to Karen's selection of that figure to recreate match-like temporality in practices.

Secondly, the present data also challenge the notion that activities classed as Playing Form will be inherently more game-like than Training Form activities in rugby union. When asked about the linear nature of some coaching practice, Karen was critical of the recent "fashion" for coach education courses to espouse, what she suggested were, "pseudo" playing-form activities, such as "games of touch". Touch games, which would ordinarily be categorised as conditioned games according to the RCABI, involve players symbolising tackles rather than engaging in full contact. Karen felt that the de-emphasis on contact and increased emphasis on passing, which reflects the skills typically required of some playing positions in rugby union more than others, would lead to certain players becoming "lost" within touch games. These players, she explained, would rarely interact with the ball, while others would be heavily involved, creating an uneven level of physical activity and mental focus across the group (Interview 4). Moreover, by altering such a fundamental part of rugby's game play (removing full contact) Karen was concerned about the time taken to explain other conditions or rules to help the players understand the boundaries of the activity: what will happen after the touch, will players form a simulated ruck or maul? If so, can the defending side contest the ball? If not, how will offside lines usually dictated by the boundaries of the ruck or maul be established etc.? Consequently, Karen believed that such wholesale alterations, creating highly nuanced and decontextualised conditions of practice, were actually a distraction from developing match-related perceptual-cognitive and motor skills:

"... if it's overcomplicated, that's the other thing I see... big fancy drills and you can see players going [losing focus]. You waste that time. It's like, let's get them mentally geared up and let's get out the box." (Interview 14)

In other words, Karen's feeling was that some activities that could be classified as "games" (Playing Form) actually fail to reflect the realities of competition sufficiently for players to develop a *sense* of the game.

Expanding upon the previous quote, Karen felt that the Training Form activities she regularly implemented at the beginning of training sessions acted as a benchmark and an important catalyst to the high levels of intensity she expected of the players during the rest of the session:

“We’ve only just started and I’m wanting them to get active. I’m quite robust around that. Somebody will come at me and say, ‘Can we just stop’ - like happened on Saturday, [Assistant Coach] said, ‘Can we just stop and can I speak about the defence for a minute’ - I’m like, ‘No’, because... I don’t want any change on that focus at this point in time.” (Interview 4, original emphasis)

Accordingly, Training Form activities were seen as a means to quickly establish players’ focus and physical intensity, ensuring they got, as Gabbett *et al.* (2009) also noted, many touches of the ball. Furthermore, Karen identified a number of other perceived benefits of using Training Form activities in her specific coaching context. Compared to game-like activities, she felt Training Form activities made it easier as a coach to closely observe players executing complex or fast movements (Interview 8), and to have a physical proximity with the players to provide frequent and immediate feedback or input (Interview 6). These findings support the benefits of Training Form activities previously raised in the literature (Gabbett *et al.*, 2009). Finally, Karen also noted that small-sized Training Form activities enabled the different coaching staff to quickly rotate between groups to ensure that she saw the backs, which were usually an assistant’s responsibility, as well as her usual group, the forwards:

“The whole point of this small group stuff is so that we’re looking at five [players]. And then we go, ‘right, we’ll rotate’. I’m looking at this five now, then I’m rotating. I think it’s really important, because otherwise I get a lot of interaction with the front eight and the boys (assistant coaches) get a lot of interaction with the backs and not *vice versa*.” (Interview 8)

As a head coach, who cited understanding player needs within her philosophy, interacting with and not simply observing all of the players during training was important to Karen.

Returning to the game-like nature of Playing Form activities, on average, training sessions included 58.85 ± 29.15 min of phase of play (75.65%) or conditioned game (24.35%) activities. Karen explained that she preferred phase of play activities to conditioned games, which she associated with smaller playing areas, because they better replicated the physical demands of playing in full-pitch matches. These

differences were exemplified when Karen recalled some of the players struggling to get into position during the phase of play activity on TD6:

“What I find interesting with this bit... now this lot are lacking a bit of urgency to get round the corner, but I mean look, it's because they're knackered. We'd done three phases and they're thinking, 'Jesus, I need a bit of a rest'. It's fine doing that [skills and conditioned game activity] you know, we've done that fine, they've now got it, they've looked at a few little bits. Now it's more game related, let's see what happens when they've got to tackle somebody and then get up and then get into position.” (Interview 10)

This suggests that certain Playing Form activities might more closely mirror the physical demands of competitive rugby union matches than others. Thus, it challenges existing research that considers game-based practice will result in “comparable (and, in some cases, greater) improvements in physical fitness... than traditional conditioning activities” (Gabbett *et al.*, 2009 p280).

Karen's coaching practice reflected, as Partington *et al.* (2014) and others have highlighted (e.g., Harvey *et al.*, 2010; Harvey *et al.*, 2013), strong views about “what worked” in her coaching context. Bruner (1999) described such beliefs as “folk pedagogies”, or coaching practices based on subjective trial and error (Harvey *et al.*, 2010). Specifically, Karen maintained a blended, multidimensional coaching practice, which she described as a Game Sense, player-centred approach, but which also incorporated activities and behaviours more usually associated with traditionally linear as well as non-traditional approaches. In other words, the way she practiced was not consistent with one easily characterised conceptual approach, but combined facets of different practice approaches at different times. Harvey *et al.* (2013) have linked the linear approach to a lack of self-awareness and criticality among coaches, and coaches who have used the language of innovative approaches yet conducted their practice in traditional ways have been accused of cognitive dissonance (e.g., Harvey *et al.*, 2013; Partington and Cushion, 2013). In the face of this research, Karen could be unfairly accused of a blanket lack of self-awareness and applying wholly abstract, unarticulable, taken-for-granted knowledge (Nash and Collins, 2006; Cushion and Partington, 2014). However, the paragraphs above demonstrate that Karen carefully considered the specific relevance, pros and cons of coaching activities to the needs of the players and to the demands of international competition. For example, Karen explained that some players struggled to grasp complex new defensive “shapes” or strategies, when introduced in-full during games:

“You can play a game as much as you like and Amy will not see it until you go, ‘This is actually what it looks like, Amy’. And you show her, like literally a set up like that [referring to an isolated drill]. And she goes, ‘Oh, right’. You know, and she’s one of the players that literally in this session, I remember at the end was like, ‘Oh yeah, now I can see the shape’.” (Interview 10)

Therefore, Karen sometimes broke down complex tactics or strategies into stages or “simple steps” for individual players. Light (2008) would be critical of such a coached, reductionist and instructivist approach (Sproule, Ollis, Gray, Thorburn, Allison and Horton, 2011). Yet, finding suitable training activities that performers can master sequentially is at the core of thinking about acquiring expert performance (Ericsson, 2006). Indeed, as Sproule *et al.* (2011) have argued, traditional approaches should not be universally rejected if there is, in fact, a “legitimate demand from the perspective of the learner” (p.678).

In summary, these findings highlight the rationales underpinning Karen’s coaching activities. In contrast to those who have suggested the excision of Training Form activities from coaching all together (see Williams and Hodges, 2005), Karen maintained a strong and critically reflective rationale for the inclusion of both Training Form and Playing Form activities in her coaching context. Moreover, contrary to the prevailing picture and perceived limitations of drills, Karen’s Training Form activities were designed with equal concern for the development of player independence, their perceptual skills and decision making ability as were Playing Form activities. Given the more subtle nuances and blended approach identified in the present study, it is important that future research, in addition to reporting the proportion of game-like activities within distinctive Training Form and Playing Form classifications, also reports more detailed information related to the specific nature of session design (i.e., the coach’s intentions for impact, and the detailed microstructures of individual activities). In this regard, ethnographic participant observation has much to offer coaching research. Moreover, as has been demanded in coaching research more generally (e.g., Potrac *et al.*, 2000), a more holistic, longitudinal view should be taken of the relevance of specific activities to athlete learning and performance. Finally, just as Abraham and Collins (1998) dismissed the need for “method coaches” who coach by numbers, the uncritical inclusion of Playing Form activities as a function of “global rules” about the benefits of games (as well as those who uncritically maintain a skills-first tradition) is

questioned. In order to be able to tune training to the needs of their learners and to the demands of their coaching context, practitioners should develop procedural and declarative knowledge about different activity types and their relation to learning and performance outcomes (Anderson, 1982; Côté and Gilbert, 2009). In other words, it is not just *what* coaches do in preparing players for competition, but also *how* they do it that counts (Becker, 2009).

5.5.1.2: MATCH DAY WARM UP

As with training sessions, a warm up preceded each competitive match. Like Bloom and colleagues' (1997) found in their study of team sports, the warm up was part of a structured and routine pre-match itinerary, which also included a team meeting and set times for the players to be taped and checked by the medial staff. Generally, the schedule of activities in each match day warm up followed a similar pattern to those illustrated in Table 7.0, taken from Scotland Women's match against Wales. Again, mirroring the linear progression from techniques to tactics of some training sessions, initial quick transitions between fitness and technical activity progressed to slightly longer periods in skills activity, before finishing with phase of play activity.

Table 7.0 Microstructure and duration of activities (according to the RCABI) during the warm up prior to playing Wales.

Start of warm up	
Fitness	02min 14sec
Technical	01min 52sec
Fitness	01min 42sec
Skills	02min 32sec
Technical	00min 58sec
Skills	02min 22sec
Skills	04min 20sec
Phase of play	03min 37sec
End of warm up	

Apart from some alterations following the Autumn International, the specific types of warm up activity and their order remained relatively stable throughout the Six Nations Championship. Relating the purpose of maintaining a similar form in each warm up, Karen explained:

"I'm wanting us [coaches] to know the warm up. I'm wanting them [players] to get used to the warm up. It takes in all the elements that we need to take in... that enables them to get organised without me saying, 'and the next thing is, and the next thing...'" (Interview 14)

Karen elaborated that her decision to keep things the same was based on experience of changing the format more regularly during the previous Six Nations Championship:

“The first season we did that and they didn’t know whether they were coming or going... just mentally, ‘Oh, we never did this... we never did that last week’.”
(Interview 14)

Hence, it was anticipated that consistency would bring familiarity, and that familiarity with the warm up would ensure the players could navigate its structure with less preinstruction.

Despite the relatively consistent pattern of warm up activities observed throughout the Six Nations Championship, as *Figure 5.0* shows, the duration spent in each sub-activity varied from match to match. As a product of this, the shortest warm up lasted 19min 01sec, whereas the longest was 31min 01sec. Karen explained that each warm up was tailored to the specific weather conditions and nuanced strategies designed for that match:

“Any coach can run a warm up, and go, ‘We’ll do a bit of hands, we’ll do a bit of two v one, we’ll do a bit of...’ we’ll, no. Let’s make it relevant and focus on some of the core elements that we want in our play, that we’re wanting to focus on.”
(Interview 11, original emphasis)

For example, when there was a particularly strong cross wind at Ireland’s home ground, almost twice the duration (10min13sec) was spent in skills activity and phase of play activity (10min13sec) than during the previous week’s match (skills: 5min 58sec; phase of play: 5min 31 sec), enabling players to practice passing, kicking and throwing both with and against the wind. However, by trying to respond to local conditions, Karen acknowledged that sometimes the coaches got the warm up wrong. Specifically, she highlighted the match against Wales, which was played on a very muddy pitch surface, following a period of rain and snow:

“We ran them, A for too long and B it was quite hard [intense]. I spoke to Sarah post that and I asked for feedback. Sarah said, ‘General feedback is that we were knackered... after the warm up we were knackered’ and I was like, ‘Absolutely’. We got that wrong, definitely got that wrong, the amount of time we did that one. So there was an absolute conscious decision, we will not repeat that again for France... we put our hands up and said, ‘We got that wrong, we let that run too long’. Now we won’t do that again.” (Interview 14)

Unlike some coaches in Bloom *et al.* (1997) who occupied themselves during warm ups by observing the opposition or avoiding involvement in the team’s activity

all together, Karen was busily involved in overseeing the players' activity as well as leading specific elements of the warm up routine. In fact, she was more actively engaged in the warm up on match days than in training sessions, which was highlighted by a greater frequency of preinstruction during match day warm ups (1.46 per min) compared to training days (0.33 per min), and in the comparative rate of hustle behaviours (1.44 per min on match days to 0.39 per min on training days). This was at odds with Karen's assertion that the purpose of developing familiarity with the warm up was to reduce the need for preinstruction. Indeed, it appeared to represent an epistemological gap between the articulated intent and the enacted reality of Karen's coaching practice (Light, 2008). When confronted with this during an SR interview, Karen related her actions to another aspect of her philosophy, which positioned the staff as role models. Specifically, Karen felt that the coaches' conduct during warm ups directly influenced the mood among the players:

"You can be hippy skippy, you can be busy and you can be ready to rock and roll. My expectation is, 'Right, this is what we want...'... no trawling about, let's get it going, because I think that sets the right tone and the right tempo."
(Interview 11)

Thus, as Faigenbaum and McFarland Jr. (2007) described in PE, the warm up was used to create and maintain a "tone" to be carried into the match. Indeed, for Karen, setting the right tone was essential if Scotland Women were to compete with their opposition:

"I'm also consciously aware that we're about to play France. And I'll tell you what, if you're sluggish for ten, fifteen minutes, you'll be battered into submission and there'll be no way back. You know, I'd spoken to the boys [assistant coaches] about it, just saying, 'We need to lift the tempo of this and we need to be asking questions and we need to be upbeat and high'. You know, because I've watched us when we're not and without a shadow of a doubt it does affect the players. I think we can massively impact on their intensity, not roaring and shouting and all the rest, but definitely being far more upbeat ourselves, there's a higher energy level from us." (Interview 14)

Relatedly, Karen recalled the strength and conditioning coach's first time in charge of a warm up and the negative impact of his less "hippy skippy" approach:

"I actually delegated the warm up to [Strength and Conditioning Coach]; obviously I want to use our S and C man (strength and conditioning coach) for the warm up... but I remember the intensity of this wasn't at the level that we wanted. Because of [Strength and Conditioning Coach]'s voice in the warm up, the team came to us really flat. So... in the context of that, we were keen to really lift it up a bit and get intensity." (Interview 6)

Accordingly, Karen used more frequent preinstruction as a communicative foundation for the upbeat and energetic approach that she hoped would inspire a positive feeling among her players. So, while it was hoped that familiarity with the warm up would enable players to move from activity to activity without instruction, instruction and hustles were used as they served to convey a sense of the intensity necessary to compete. The dissonance evident between Karen's intentions and practice during match day warm ups highlights the complex and sometimes competing priorities that characterised her coaching role.

Despite Karen's focus on intensity and preparing the team for their "first contact with the enemy" (Interview 7), she felt there was a balance to achieve during warm ups between the quality of technical execution and the intensity of physical activity:

"It is not about intensity at the exclusion of everything else. It can't be that we're going to create intensity, but we're going to forget about everything technically. So it is intensity, we can still have intensity, but we can have the application of everything technically that we have been working on." (Interview 4)

More specifically, there was a need to be more accurate with the technical components and to ensure the players had time to run numerous repetitions of essential skills and in relevant situations prior to the match:

"If you're looking really at technical stuff and sort of dropping the intensity to focus on a genuine technical aspect... like in the line out, you know, we can go, 'Right, let's just look at this. Let's walk through it, let's work it out, let's look at the personnel'. To then suddenly, bang, 'Right, come on, I'm wanting six line outs', because that's game relevant. So we've done the little down bit, but now I'm wanting intensity; I'm not wanting chatting and fanning about, because actually that's what you then look like in a game: slow, sluggish, not dynamic, you know." (Interview 14)

Here, an adaptive pedagogy was necessary for Karen to swap between reducing the intensity of the warm up, to ensure a technical point was addressed, and then creating intensity, to prepare the players for the rigours of international competition. Taken together, these in-the-moment adaptations reflected a continual tuning of her practice to the unique and dynamic complexities of the coaching context (Cushion *et al.*, 2003). However, this task was neither without compromise nor error. Thus, the context of match day warm ups again revealed the complex role of general orchestrator that Karen played as head coach (Jones and Wallace, 2006), as well as

the importance of context and relationships with associates in shaping her coaching practice.

5.5.1.3: TEAM MEETINGS - PERFORMANCE ANALYSIS

During match weekends, team meetings to analyse the upcoming opposition and later, to review their own performance, were a significant collective activity in Scotland Women's itinerary. Thus, as Groom *et al.* (2011) recently described, performance analysis was a prominent part of the coaching process. Most team meetings to analyse the upcoming opposition happened immediately before the training session (Captain's Run) held the day before each match. However, some also took place during other training days, either in the break for lunch between training sessions or in the evening at the team hotel. For Karen, these meetings performed several functions, which she summarised:

"I think they (players) should all have an opportunity to contribute... I mean, don't get me wrong, some people don't contribute because they are actually genuinely sitting there going, 'Oh, it's enough for me to just get selected at the moment and get on the field'... In terms of developing their Game Sense and just a general playing knowledge, this bit is critical. I'm not going to be on the field and I keep saying that to them. Even if we've said we're going to do something specific, like we're going to run everything down the twelve channel, but there happens to be a gaping hole in the thirteen channel or the ten channel, then I expect people on field to be able to have the confidence [to adapt]. If we can't do it in a room that's not under pressure, with[out] a referee on top of us, with[out] an opposition on top of us, and exchange why we think those things, we're never going to be confident on the field to do it." (Interview 13)

This approach to analysing the opposition during team meetings was directly informed by Karen's philosophy. Firstly, she felt that analysis meetings empowered players, within an open forum, to contribute to developing specific game plans for approaching matches, although Karen also recognised that some players would be more forthcoming than others in this regard. Secondly, analysis meetings were a means to develop Game Sense through an open dialogue between the players and coaches about why and how they might play in different ways. Finally, by developing Game Sense, Karen felt that the players would be better able to make technical or tactical adaptations during matches, which further highlights the impact of context upon shifting power relations and distributed leadership in the coaching process (Gronn, 2000).

In terms of developing Game Sense and game plans, Karen expected everyone to watch footage of the upcoming opposition, which was provided to all players in the week before the match. She explained the sort of things players were expected to look for:

“You know, look at themselves and then look at the opposition. Because actually, ‘What’s my opposite number doing?’ That’s what you should be looking [at] on the video... Maybe a general, you know, watch it twice through, watch the game and then look at what your opposite number is made of.” (Interview 13)

Then, during analysis meetings, Karen questioned the players about what they had learned about their opponents. These questions were initially general in nature and open to the group as a whole (e.g., “What did we see?”, TD11), but became more specific as the players began to respond (e.g., “Who are Wales’s main threats?”, TD9 and “Who is Ireland’s main ball carrier?”, TD13). Probing questions were then posed to specific players, usually those who played the same position as the identified opponent, which examined specific details of their technical habits. Thus, like Groom *et al.* (2011), video footage was used to stimulate dialogue between players and between players and coaches.

Where the players identified priorities matching those agreed between the coaches, video of related critical incidents was played on a big screen while the topic was discussed in detail. The video was then paused or played in slow motion while the players and coaches asked questions or made statements about the opposition’s capability and Scotland Women’s potential responses. However, as Groom *et al.* (2011) found with football coaches of English national youth teams, Karen carefully balanced the video shown of opponents, to ensure that it gave a fair impression of their ability, whilst simultaneously giving Scotland Women players confidence that the opposition were not invincible. For example, she explained why she had shown footage of France playing Ireland, rather than video of Scotland Women’s last encounter with France during TD11:

“...a year ago we got absolutely battered off the park by the French scrum. So I’m not wanting to make a bigger deal of it than saying, ‘Well, you know, we can contain Ireland and if they can contain France, so can we’.” (Interview 13)

Where the players failed in the first instance to identify everything that the coaches had noticed, highlighted footage was played and the players were encouraged to talk about, “what they saw”. The players’ views and any additional points that the

coaches made during these meetings were drawn up on flip-chart paper in one column, with another column labelled “actions” contained strategies to neutralise identified threats or exploit noted weaknesses. Players were then broken into groups to come up with actions, or these were discussed as part of the open forum.

Karen explained that the approach used in video analysis meetings was about getting players to create links between the specific role they would play as individuals and the evolving collective team strategy:

“If you’re unaware and you don’t watch the video... actually their [number] eight is a threat - ‘How am I, as a back row player in our unit going to combat that threat?’ It’s all linked in to establishing a game plan and it’s really important that the front five understand the same threat, because some people only think of a threat in terms of their own little bit. Whereas now, there’s an exchange of information, ‘These are the strengths’ - and the bit that I’m interested in, ‘How are we going to combat that?’” (Interview 13)

In this way, questioning behaviours coupled with the playback of video footage played an important role in checking players’ Game Sense and ensuring a level of common understanding within the team (i.e., shared cognitions; Reimer, Park and Hinsz, 2006). In addition, questioning was used to extend the players’ thinking beyond the immediate circumstances of the video footage, to consider alternative outcomes, different tactics or to develop a deeper understanding of how to execute a strategy. For example, Karen described probing Jess for further understanding after she had praised an aspect of France’s tactics:

“Jess, to be fair to her, said, ‘Good kick, good chase’ but what’s a good chase? What made it a good chase? And when you actually ask them that you could hear tumbleweed through the room. It’s like, ‘Well, what makes a good chase?’ Now, if we don’t know what makes a good chase, we can’t possibly execute it ourselves never, never mind analyse the opposition.” (Interview 13)

By involving her players in understanding and setting the team’s tactics, Karen demonstrated her intent to be player-centred and to develop Game Sense off the pitch as well as on it. Indeed, performance analysis meetings were focused on developing players’ independence to read the game and make informed decisions, as the Game Sense literature advocates (e.g., Light, 2004; Gabbett *et al.*, 2009; Light and Evans, 2010).

Another purpose to analysing the opposition, similar to Groom and colleagues’ (2011) findings, was for Karen and her associates to plan training sessions, particularly in the lead up to matches. This typically involved ensuring time

was given to practise tactical or technical amendments to the team's general game plan. For example, Karen recalled the use of performance analysis in planning training during the lead up to the match against Wales:

"We'd done a fair bit of analysis on Wales. So, the whole training we did the week before was around effective clear out, the break down, getting it into the wide channel with Abigail - let's release Abigail in the wide channel - and the specific moves that we thought would hold that midfield defence.... We picked about four things that we thought were really, really valid.... We'd shown them footage before we'd gone out to train so that the training was really, like it was focused on this is pre-Wales. You know, we're not doing these things today just for the sake of it, it's all fitted round the various elements of the game we're going to play against Wales." (Interview 12)

Indeed, the coaches, especially Karen, were frequently observed in training explaining that the purpose of a particular activity was to prepare for a given aspect of an opponent's strengths or weaknesses. Such interactions were also evident in the time Karen spent giving technical explanation (6.29%), which ranked as her sixth most frequent interval behaviour during training sessions. For example, where France were effective at the catch-and-drive from lineouts, Scotland Women practiced specific counter strategies, and where England tended to direct kick offs deep into the opponent's half, rather than trying to contest a shorter kick, more time than usual was spent on the organisation of players to receive longer kicks.

Beyond the inclusion of specific activities or the broad allocation of time in training, Karen also used performance analysis to shape the way specific activities were delivered. For example, she recalled how identifying the average number of phases England achieved in attack meant that she could condition defensive activities to last for a similar length of time. Thus, rest periods or stoppages to allow coaching interventions were mapped directly to predicted match intensities:

"...in the England game, I think there was up to twelve, twelve phases. And I said, 'so, that's good and that's what we need to be saying'. Nine times out of ten, if you can defend properly for eight phases, there tends to be there's an error somewhere along the line... And that's what I'm saying is we trained [for] a minimum of eight." (Interview 10)

In these ways, pre-match performance analysis was critical to ensuring that the limited time Karen had with the players in training was spent, in her opinion, effectively, by preparing the team to meet the specific challenges and opportunities presented by their opponents.

Post-match analysis meetings were solely focused on analysing Scotland Women's performance. They were always held the morning after match days, and as Groom *et al.* (2011) described, post-game performance analysis was, "used to provide feedback to athletes to modify behaviour and to improve understanding" (p. 16). Like pre-match opposition analysis, video highlights were a crucial part of post-match meetings, especially for making evident the good or bad performance of tactics and techniques and for exploring ways that current understanding or execution could be improved. Also central to post-match analysis was the provision of individual and team statistics related to key performance indicators (KPIs), with tables and graphs of data pinned around the room for players to browse before each meeting and for Karen to refer to during the proceedings. Mirroring many of the statistical indicators noted in rugby union by Hughes and Bartlett (2002), each player's passes, carries, turnovers, kicks, tackles and points were quantified. In addition, the video analyst calculated group and team statistics for successful scrums, lineouts and restarts.

Typically, critical incidents highlighted in post-match analysis concerned the whole team's performance (e.g., team defensive organisation), although individual errors or highlights were also unavoidably obvious on the video footage and often formed an explicit part of discussions about *why* a critical incident had occurred. In fact, Karen usually asked individuals to explain their thinking or rationalise their actions as the video was played back in slow motion, like a form of the SR procedures used in this research. During meetings, positive play was usually noted first, with highlights of good attack and defence shown on video and directly related by Karen to a "good stat" and/or a strategy that had been worked on in preparation for the game. For example, having worked on completing leg tackles in training session 10, Karen said, "We saw 90 percent completion of leg tackles against France, up from England at 56 [%] and Wales at 67 [%]", before showing highlights of good phases of defence against France on the video (post-match analysis, France). Negative points, discussed in the second part of meetings, were usually highlighted in relation to critical incidents that related to concerning statistics or a failure to implement an established strategy. In each case, Karen felt that players should take responsibility for their actions and develop solutions together, with minimal input

from the coaches. Describing her philosophy here, Karen recalled posing the general question, in relation to a succession of defensive errors shown on the video, “What’s happened here?” (post-match analysis, Wales):

“I was like, well, let’s see who puts their hand up here? Let’s see how they resolve it, because, again, it’s very relevant to the type of play on the pitch.”
(Interview 17)

Further embodying her philosophy of player empowerment, especially in light of the players’ control over decision making on the pitch, when Karen did intervene in the players’ discussion of a critical incident, she tended to use questioning to draw an answer or solution from the players, rather than dictate an instruction or correction herself. For example, during one analysis meeting, players spent over 15 minutes discussing whether, when outnumbered by attackers close to Scotland Women’s try line, two players were correct to have broken with the team’s “drift” defence in favour of a “blitz” tactic (post-match analysis, Wales). Karen recalled, that in spite of how long it took to reach a consensus, she was pleased that the players had explored a number of potential strategies as a result of her question, “what were your options?”:

“I think that was quite good because Liz said, ‘Jade’s gone. I’ll tell you what I was waiting on, I was waiting on this ball’. And we’re, ‘Yeah, but look, look what is in front of you’... and actually she said to herself, ‘It made no difference, did it? It was still a five on two... there was even more justification to blitz’... But, I thought that process worked well, because she got to that conclusion [from], ‘What were your options?’” (Interview 17)

In this way, Karen’s approach to performance analysis carried many of the characteristics of Problem-Based Learning (PBL). Indeed, reflecting Jones and Turner’s (2006) summary of PBL, players were encouraged to develop decision-making skills by solving “real-world” problems; they were exposed to different bodies of knowledge while exploring various solutions, through peer discussion and coach facilitation; and their learning was extended beyond the present situation through questioning, such as, “...but, what would you have done if...?”. Therefore, the present evidence, though only from one case, is at odds with Groom and colleagues’ (2011) concern that critical incident analysis is largely reactive; conversely, Karen’s critical incident approach, though grounded in what had happened, was predominantly prospective, helping to prepare players to comprehend the myriad of indefinite challenges that lay before them in future competition.

As previously noted, technical and tactical KPIs were used to assess how well individuals were performing and to highlight personal and collective improvement (or not) from previous games and seasons. Indeed, Karen viewed the provision of individualised feedback as particularly important given that Scotland Women failed to win any games during the Six Nations Championship. Through individual feedback, she explained, players could maintain a positive focus on achieving improved (technical and tactical) performances against teams, for example, that had beaten them by over 50 points the previous season, rather than focussing on the result. In other words, she emphasised personal mastery and collective performance goals (referenced to the team's prior performances) as opposed to simply winning or losing against an opponent (Adie, Duda and Ntoumanis, 2008):

"We've got to be looking at the elements of performance and the improvement in elements of our performance as opposed to just a win or a result. And actually it is really interesting, the whole piece of analysis we'll do at the end of the season. There is undoubted improvement there in performance, undoubtedly. There is in ball retention, there is in ball presentation, there is in - what do you call it - our kicking execution, and there is in our pass execution. Now they're five core elements that we spent time on." (Interview 17)

However, as the above quote suggests, the analysis of performance was not only viewed as a valuable feedback process for players, it was also seen as an indicator of the coaches' effectiveness.

Where team statistics for technical and tactical performance showed improvement compared to last season and from game-to-game within the present season, Karen perceived the coaches were helping the players and the team to get better. Indeed, she highlights in the above quote skills and techniques they had focused on developing during training, which she was confident would show improved statistical performance at the end of the season. This view of effective coaching was inspired, at least in part, by the SRU's requirement that, in addition to their record of wins and losses, each representative team submit KPI statistics (e.g., % passes complete) to the team's performance manager and the head of coach development at the end of the Six Nations Championship. In Karen's opinion, this meant that the coaches as well as the players were being assessed and that they would all, ultimately, be judged by the players' performance. Yet, at the same time, Karen also saw these KPIs, if the statistics did improve by the end of the season, as a means to leverage for more money from the SRU for the women's programme or for

the allocation of more training time in preparation for competition. The SRU's approach is partially consistent with Côté and Gilbert's (2009) proposed definition of coach effectiveness and expertise, which includes criteria related to improving athletes' competence. However, it also demonstrates a lack of appreciation of other outcomes by which coaches may be judged, such as developing positive social relationships with players or reducing player anxiety (Mallett and Côté, 2006; Côté and Gilbert, 2009). This is perhaps indicative of the competitive level at which Karen and her associates operated.

5.5.2: COACH BEHAVIOURS

5.5.2.1: OBSERVATION

Overall, Karen spent more time in silent observation than in any other category of behaviour. Karen's highest level of observation was recorded during matches. There is limited existing data available for comparison (Kahan, 1999); however, Karen spent an almost identical proportion of her time observing during matches (40.35%) to male, professional soccer coaches (40.38%; Smith and Cushion, 2006), but less than youth ice hockey coaches (51.20%; Trudel *et al.*, 1996). As Trudel *et al.* (1996) suggested, matches simply offered fewer coachable moments, with Karen required to sit in the stands, often too far away from the players to be heard. Indeed, only 1.54% of all Karen's behaviours during match play were directed to players, and it was unclear how many of these behaviours were actually received, as players rarely acknowledge her instructions or corrections.

Instead of trying to directly interact with players during matches, Karen engaged in frequent and sometimes extended periods of note taking following periods of observation⁷. Notes were made in order to identify points for discussion at half time and after the match. For example, Karen frequently reported statistics from her notes to the players, including: how long Scotland Women had spent in the opponent's half; the number of passes made without error; what percentage of lineouts they had won; and how many times individuals had missed tackles.

⁷ Note taking and referring to notes was categorised as "other" according to the RCABI, and accounted almost exclusively for instances of "other" coded during matches and many instances of "other" coded during training. "Other" ranked fourth of Karen's behaviours during matches (4.72% event; 4.79% interval).

Moreover, Karen was often observed referring to her notes when explaining her choice of intended substitute to the assistant coaches over the radio. Therefore, in addition to monitoring team and individual performance, periods of silent observation were central to the cognitive processes underpinning Karen's tactical interventions as well as her off-pitch interactions with players on match days.

Karen also spent a greater proportion of training sessions in observation (26.29%) than previous studies have found (e.g., Jones *et al.*, 1997; Cushion and Jones, 2001; Potrac *et al.*, 2002; Potrac *et al.*, 2007; Ford *et al.*, 2010; Partington and Cushion, 2013; Partington *et al.*, 2014). Karen highlighted three points during SR interviews to explain her prominent use of observation in training. Firstly, it allowed her associates time and space to do their jobs. Secondly, as with matches, it enabled her to diagnostically monitor players' performance. And thirdly, it gave the players space to learn for themselves. Elaborating on the first point, and reflecting her belief that the head coach should oversee the whole coaching process, Karen wanted her assistant and specialist coaches to deal with the smaller, technical coaching points so that she could preside over the bigger picture. Accordingly, Karen explained:

"I've given them (assistants) specific tasks, I'm like, 'Right, you coach'. I want to be a head coach, I want to stand back and look at our space and our width... If they're honing in those two little technical bits then I can stand back here and go, 'Yeah, our shape...' or 'We're not urgent enough', you know, just a far bigger, wider thing than being caught up in the tiny, tiny bits of coaching all the time." (Interview 10)

In practice, Karen was often seen positioning herself well away from the immediate area of activity, leaving one of her associates to "run the show", while she observed the "bigger picture". Karen reflected further upon this when confronted with video footage that showed her standing some 20 meters away from one assistant coach, who had gathered the whole squad for feedback during a phase of play activity:

"I think with here it was just not wanting to kind of take away from [Assistant Coach], he just absolutely made some real positive correction there. And let him, I'm really conscious of just not bloody saying things for saying things sake. And I like to get away from the area that I've given them... 'Right, you are in charge, you are leading this bit'... I'm now standing back there, I'm having a look." (Interview 10)

Karen was also determined not to "step in" and overshadow her assistant coaches when she was closer to the action, even when she identified issues or corrections she would have liked to take up with the players:

"I'm not saying much and I'm also conscious of letting... this is [Assistant Coach]'s bit. So I'm really conscious of letting him coach...whilst there are some things that I'm seeing that I'm not too happy about." (Interview 6)

This finding extends previous work (e.g., Chelladurai, 1978; Smoll and Smith, 1989; Côté *et al.*, 1995c) by foregrounding the role of various associates, not just athletes, in shaping the coach's practice.

Silent observation was also an important part of Karen's behaviours towards players. Indeed, observations were part of a deliberate strategy of intervention and non-intervention in the players' training, but with varied purposes depending upon the context and especially during technical activity (20.92% event behaviours) and phase of play activity (19.68% event behaviours). During technical activities, time spent watching players' performance was central to the processes of analysis, synthesis and the modification of coaching practice (Cross, 1995; Cross and Ellice, 1997). For example, in one SR interview, Karen noted how continued observation of low activity levels prompted her intervention to demand action:

"I'll stand and watch them for three minutes. And then I'll go over and I'll go, 'Right, can we get going now, please'. Because literally, it'll be like a blinking housewives meeting and we've done nothing." (Interview 14)

In another example, she explained why she instigated periods of observation following previous interventions to provide correction or feedback:

"Right, so I've said something to her and then I focused on having a really good close look at her and see if there's any difference. I'm really conscious of then watching them. What I'll do is I'll have a look, you know, and I might say something; once you've said it, you recheck, so that she actually knows you're still looking at her. I'm very conscious of looking for things that I've made a comment about." (Interview 4)

Thus, observation during technical activities gave Karen time to digest what she saw, in order to make considered interventions and to check that prior interventions were effective. Where technical performance was perceived to improve, observations were often associated with positive feedback, but where no improvement was observed, further correction, demonstration and hustle behaviours followed.

Silence was used for a different purpose during phase of play activity. Because Karen typically worked with the forwards for unit-specific technical and skills activities, whole team phase of play activities were an important opportunity for her to see the backs in action as well. Indeed, Karen reflected upon the benefits of having two assistant coaches, one to work with each team (attack and defence)

during Playing Form activities, enabling her to observe and interact with either group as she chose:

“I like to get in a situation whereby we’ve maybe got a coach overseeing both and then I can like basically get involved with both groups, so I’m seeing a greater number of players as opposed to just working with one group.”
(Interview 4)

Moreover, Karen felt that it was important that the players knew that she, with the final say over team selection, had paid attention to each of them during practice. This was highlighted during an SR interview, when Karen was shown on the video closely observing Victoria (full back) during a phase of play activity:

“This is really important, this little bit, to be standing here, particularly me next to the full back. Because, you know, the full back will not fall necessarily in my remit, because I do a lot with the front eight - [Assistant Coach] will do a lot with the back line. So it’s really important that they realise that I do pay attention to what they’re doing.” (Interview 5)

Karen also perceived periods of non-intervention as a valuable learning opportunity for the players. In fact, when intervals of conferring were added to those in observation, Karen spent 54.07% of her time not interacting with the players. This paints a picture somewhat at odds with previous descriptions of the coach as an insatiable instructor, providing high-levels of correction and numerous prompts and hustles (Douge and Hastie, 1993). For Karen, periods of non-intervention were essential for players to develop and experiment with solutions to the complex technical and tactical “issues” of international rugby on their own:

“I think sometimes... it’s coaching, you feel like you’ve got to be saying something, you’ve got to be like chattering on... That’s, I think, the easy option. The other option is to say, ‘Right guys, how about self-coaching’.” (Interview 8)

Indeed, given that some Scotland Women players had significant skills, experience and expertise, Karen perceived that by not intervening she would promote collaboration between the players:

“I also think there’s a point to stand back. Like there’s also a point where I stand back because I want them to like, you know... as players, to start coaching each other.” (Interview 8)

Minimising interventions in the players’ training in these ways may have facilitated self-regulated learning among athletes. According to Butler and Winne (1995) self-regulated learning will occur during periods of silence because players have to set goals for developing their knowledge, deliberate about strategies, adapt tactics and monitor progress without the input of the coach. Moreover, research also supports

the use of self-regulated training with top-level international athletes, due to their superior sport-specific knowledge and ability to process relevant cues, generate strategies and self-reflect (Cleary and Zimmerman, 2001; Toering, Elferink-Gemser, Jordet, Pepping and Visscher, 2012).

Finally, Karen explained her “hands off” approach as a way to prepare players for the realities of competition, where she would not be able to intervene. For example, she recalled a decision not to intervene during a skills activity, despite Mary (hooker) failing to hit the intended target five consecutive times:

“The problem is, come game time, you’re not gonna be there to put your arm round and go, ‘Mary, you know you can do this. Go on, trot back the line, chill out, drop your shoulders and have a go’.” (Interview 11)

Therefore, mirroring Smith and Cushion’s (2006) findings from the competition setting, the present study found that silent observation was intended to give the players space to engage in experiential learning as well as to accommodate the cognitive activity that underpinned thoughtful coaching interventions during training sessions. Moreover, the present findings reinforce the notion of silent observation as a deliberate coaching strategy (Cushion *et al.*, 2012b) rather than an “off-task” or ineffective behaviour (Claxton, 1988; Jones *et al.*, 1997).

5.5.2.2: CONFERRING WITH ASSOCIATES

Overall, conferring with associates was Karen's second highest ranked behaviour. During training, it was important for Karen to interact with her assistant coaches, who also directed the players’ activity, so that she could take an overview of the team’s progress and broader tactical structure whilst still influencing the session. For example, phase of play activities were often “refereed” by an assistant while Karen observed how the play unfolded from behind the defending team. At intervals Karen would confer with the assistant to suggest refinements to the particular “move” or strategy, which he would then correct with the players:

“I’d be saying to [Assistant Coach], ‘Set up something... some of the back’s lines of running or some of our moves’ and things like that, because that is his domain... It means I can stand back and go, ‘I need that to be maybe like deeper alignment, [Assistant Coach]’ or ‘I need a harder out-to-inside line’, and ‘I’m really focussing on hitting that shoulder’. I’ll say it and then he’ll go, ‘Right, okay, fine’ and let him get on with delivering it.” (Interview 8)

However, Karen also interacted with one assistant in particular during training in order to “mentor him” as a less experienced coach. For instance, Karen felt that he was not as strict as another with the players, which led to more standing around and less activity during sessions, and that his attention sometimes drifted. Yet, this practice seemed to be more like authoritarian instruction than supportive guidance (for a review of the mentoring literature, see Jones *et al.*, 2009). Recalling some of her interactions with the assistant, Karen explained:

“I’m sort of like, you know, ‘[Assistant Coach One], get your whistle’. I mean you heard me two minutes ago. ‘Get your whistle. Take them up ten meters. Blow [your whistle]’. That’s a relationship I’ve got to keep pushing and keep mentoring, because had that been [Assistant Coach Two] on the field we’d have had, probably, four scrums by now.” (Interview 5)

“I’ve said to [Assistant Coach], ‘It’s your demeanour as a coach...’ I think there’s a lot of time, like [Assistant Coach] shuffles about at the back. And I’m like, ‘You’re the back’s coach, get in there and go and speak to Gillian’. You know, ‘You’re not paying attention’.” (Interview 11)

Karen also conferred with her colleagues to ensure that plans were running to schedule and that people knew what they were doing:

“Conferring with assistants for me is to make sure we’re sticking to what our key... the key components or the key factors that we wanted to focus on. And reminding myself and reminding them. And then hoping that seeps through right down to the players.” (Interview 19)

Along similar lines, Karen highlighted one occasion when a strength and conditioning coach was delayed in starting the warm up, requiring her to hustle him into action:

“I get really frustrated... and I did it yesterday, I go out and I look at my watch and I go, ‘Right, [Strength and Conditioning Coach], half past the warm up starts’... And I looked at my watch yesterday and there were players in that corner, they were all doing things, really positive things, but I looked at my watch and it was half past.” (Interview 11)

Thus, conferring was an important function of Karen’s role as head coach, particularly in managing her colleagues’ impact on the team’s preparation.

Other important interactions with associates during training included getting updates from the medical team on injured players, giving reminders to assistant and specialist coaches, and gathering information about the players’ performance from her assistant coaches. For example, Karen recalled dividing responsibilities between herself and her assistants for watching different players during a phase of play activity:

"I'd said [Assistant Coach One] will deal with the position of the back three, [Assistant Coach Two] will look at the positioning of ten, twelve, thirteen in midfield, just to see what we're doing... And then when I stop it, we'll come in and we'll say, 'Anything from the backs, anything from there, anything from there?'" (Interview 11)

By conferring in this way, Karen could gather more detailed information about specific players than if she was the only one watching them. Furthermore, given their limited amount of time with the players, Karen described the importance of gaining her assistants' opinions as the practices progressed, so that changes could be made to tactics and techniques immediately:

"I'm happy to confer now because somebody else is refereeing it. I've got the opportunity to stand with [Assistant Coach] at the back and say, 'Right, let's look at the shape'... Conferring through[out] is actually really really important as opposed to just at the conclusion." (Interview 5)

Another purpose to conferring with associates was to deal with the ever-changing circumstances of the coaching process. For example, as the person in overall charge of training, Karen had to adapt "on the hoof" to account for other coaches overrunning in their designated sections:

"Basically, I said to [Specialist Coach], 'Forty minutes, we'll go for...', I think we had forty minutes. So I said, 'Go and refine stuff for half an hour with the back row...', because they needed that input, I said, '...and then we'll, basically, shove them all together and we'll play ten v ten'. And that was where we wanted to get to, but that bit got compromised because that bit over-ran... I remember, I stopped [my activity] and I looked over, and I went, '[Specialist Coach], are you ready?' And [she] was like, 'Ten minutes' or something, and I thought, 'Oh no. Right, okay, we're not gonna get to where [we wanted]...' (Interview 9)

Similarly, when, during another session, a limitation was identified in the established defensive tactics for scrums, Karen discussed the best solution with an assistant and also agreed an alteration to the evening's itinerary to include time for the players to discuss solutions to the issue. Karen recalled this situation herself:

"I'd spoken to [Assistant Coach] about two or three scenarios on the field that I saw today. And I said, 'Let's draw that up on the board tonight and say how are you (players) going to defend?'" (Interview 6)

More generally, all members of staff acted as a sounding board for Karen, who would frequently run her ideas past them, asking for their opinions. Thus, when Scotland Women's usual training pitches were frozen and a session had to be moved, Karen gathered the staff together to agree alterations to the itinerary. In another

example, when a new squad player performed well during training, Karen asked her assistants if they too thought the player was ready to be selected for the team.

During matches, conferring with associates was found to play a different role; it ensured Karen could influence the team despite being required by competition rules sit in the stands. By having to stay in a specified “coach’s area”, she had few opportunities to interact with the players or anyone other than the video analyst, who tried to film the match from a nearby position, and the performance manager, who often sat with Karen. However, by using a private radio network, Karen could communicate with all of the staff who were allowed pitch-side, and particularly those identified as medics and “runners”, who could go onto the pitch during stoppages in play. Thus, just as Mouchet *et al.* (2013) recently found with elite-level rugby coaches, communication to the players via associates was essential for Karen to be able to influence on-pitch decision making. Karen described how the “runners” and medics would relay her information to the players:

“I need to be able to get a message to [Assistant Coach], and that just because, you know, it’s like ‘Look, this is kinda urgent’. When I feed in things, I’m wanting that to go right to our two runners which was [Injured Player] and it was [Assistant Coach].” (Interview 7)

“So, when we get a decent stoppage we’ll get [Assistant Coach] on with the water. He’ll head towards the backs. In this instance, we had Sarah going into the forwards. And then, if there’s a player who’s like out of the loop, on the floor... then [Physiotherapist] will pass that on so that they haven’t missed anything that the rest of the team have got.” (Interview 7)

Karen also conferred with those near to her in the stands. For example, she explained the benefit of having the performance manager sitting next to her, who would provide valued opinion and comment on the team’s performance and who could relay any radio communications that she missed due to her focus on the match:

“[Performance Manager]’s usually up here purely because she’s feeding in stuff. It’s quite good having her listening to [Team Manager], because sometimes I’m just thinking of the coaching.” (Interview 7)

Despite its overall prevalence, it was not always easy for Karen to confer openly with her assistant coaches, which she wanted to do in order to discuss how well players were performing and the possible substitutions she would make. For example, during the Autumn International match, the substitutes were sitting very close to the coach’s area, meaning that Karen was concerned that they would overhear her frank discussions with the performance manager and video analyst.

Similarly, she was concerned that comments made about players would be picked up on the video analyst's match footage, which would cause problems if they were heard during playback in performance analysis meetings. Recalling this, Karen stated:

"For me to communicate here with [Performance Manager] or for me to communicate with [Assistant Coach] was not the easiest... We felt really open, as opposed to being really close to people so that you can speak. And it's, you know, you're having to shout across [about] so-and-so to [Assistant Coach] on the video." (Interview 7)

To add to Karen's concerns, at the same match, the SRU Council Member was sitting in the coach's area, creating distractions by asking Karen questions and trying to make conversation:

"I'm not interested in them. I'm just like, 'You go and do your [official] bit, because I'm...' You know, watch the game by all means, but you wouldn't have an [official] person sitting here speaking. You know what I mean... I'm just... 'Speak to me in eighty minutes, but I'm, right now, I'm not...'. (Interview 7)

This highlights the potential for various associates as well as the coach to initiate conferring interactions, just as with questioning behaviours. Consequently, conferring was found to be both a valuable and distracting aspect of Karen's experiences during matches.

5.5.2.3: QUESTIONING

During training sessions, Karen's third ranked behaviour was questioning, behind silent observation and conferring with associates, making it her most frequent direct interaction with the players. Indeed, Karen spent more time asking and answering players' questions (8.96% interval) than in any other individual behaviour typically associated with the coaching role (e.g., instruction, feedback, correction, hustle or management; Douge and Hastie, 1993). Furthermore, questioning accounted for a greater proportion of Karen's behaviours during training (8.26% event) than has typically been reported before (e.g., Claxton, 1988; Cushion and Jones, 2001; Potrac *et al.*, 2007). Thus, Karen's intention to use a "questioning approach" appeared to be evident in her practice.

Mirroring the primary rationale of coaches in Partington and Cushion's (2013) study, Karen generally used questioning during training to engage players in learning about the game, which she saw as being a complimentary behaviour to the

“Game Sense” approach. Karen particularly highlighted the need to check the players’ understanding of the new style of play she had introduced to Scotland Women. For instance, Karen recalled an occasion where she questioned a group of players during a skills activity:

“I’m just trying to engage everybody in a whole new, completely different, massive change of mind set in terms of how we can attack and our individual positioning and where they need to think as individual within that framework... This was all more about, you know, Game Sense, game awareness.” (Interview 5)

Indeed, questions were more frequently used during skills activity (12.07%) than in any other sub-activity, which Karen explained was to encourage players to develop explicit links between these smaller or isolated activities and actual match play:

“I’m almost trying to build a picture in their head and reinforcing the picture... So, I keep going back to it and back to it, to make sure we’re still repeating the same message. Has it gone through? It’s just constantly reemphasising the messages and the key points, you know.” (Interview 8)

Furthermore, questions were used to extend players’ thinking beyond the immediate circumstances of the activity, to consider alternative options or different ways that things might happen during competition. These points are of particular interest because the greatest frequency of technical explanation (9.09%; relating the player’s actions to match performance) was also found during skills activity, and instances of technical explanation often followed use of questioning within the overall sequence of Karen’s behaviours. Karen confirmed that this combination of behaviours was especially relevant to her players given the limitations highlighted in club-level competition and the consequent big “step up” to international level:

“I’m actually standing with the full back, questioning her, right next to her, ‘What are you now thinking about?’, because, at the moment... play is fifty meters to my right. ‘What are you thinking about just now? Where are your main threats coming from? Have you looked at the opposition back three? What is it that you’re chatting to your wingers about’ ... This area in particular with us is weak, because they’re under no pressure in [club rugby] in the back three. You know, and then suddenly they’re in the Six Nations Championship getting balls rained down on them and we wonder why they’re out of position, because they’re never tested [in club rugby].” (Interview 5)

Thus, questioning was an important behaviour to encourage players’ cognitive engagement in problem solving, discovery and performance awareness, which are all aspects of active learning (Chambers and Vickers, 2006).

When the prolificacy of questioning in skills activity was probed further, Karen identified that the specific nature of the activity, in addition to the importance of helping players to make connections between Training Form activity and the realities of matches, promoted her more frequent use of questioning. Specifically, the smaller size of groups and the physical spaces used in skills activity (e.g., ≤ 10 per group in small areas) compared to Playing Form activities - where whole teams would attack and defend on the full pitch - was more conducive to questioning:

"I suppose sometimes it's... you just feel like it's a far easier... the ratio's completely different isn't it. I mean it's just far better... you've got a far littler, tighter, smaller group... you're not having to shout twenty meters across the field. It was like yesterday, it was a howling gale when we went out on the field and you're just... it's just a completely, completely different set of scenarios really." (Interview 9)

"What's important as well, for me, is the fact that in that size of group, with that bunch of people, they're happy to say something back." (Interview 9)

Expanding on this further, Karen emphasised the importance of small group sizes for not only encouraging players to respond to questions, but to also for helping them to feel comfortable asking the coaches questions. For example, during one SR interview, Karen recalled how Amy, who usually lacked confidence, being an inexperienced player, had asked her a question:

"It's almost, let's get everybody back in and comfortable and starting to develop some kind of, 'Right, okay, I'm confident to say something here'. You'll always hear me saying, 'I'd rather have somebody ask a stupid question than no question'. And we get [that] here with this, Amy literally says, 'Can I just ask something?' That was a real fantastic moment because Amy's the type that would do the whole drill, then wait to the end, go wandering off somewhere else and go to somebody, 'Listen, I don't want to make an idiot of myself, but blah blah blah'." (Interview 9)

Thus, it was not just Playing Form activities that provided, "a catalyst for coach behaviors and a practice setting which supports long-term learning" (Partington and Cushion, 2013 p.379). In fact, Karen used higher levels of questioning and technical explanation during Training Form activities in order to account for the fact that she perceived they had less relevance to competitive performance.

Questioning was less frequently used for other purposes during training. For example, Karen sometimes used questions in the place of corrections or scolds to emphasise the players' responsibility for setting their own standards as international athletes. During one SR interview, Karen recalled several occasions when the players' passing was below standard, so she had stopped the session and used questioning to

gain a response from the players, rather than providing an immediate, more direct, coach-led correction:

Again, back to the handling stuff at the weekend, you'll have heard me say exactly the same thing as I said in that video... 'Tell me what the essences of catch and pass are? Tell me what it is we know? Well, why are we not doing it?' ... I've asked them, 'Why are we not doing it, ladies?' And eventually somebody puts their hands up to say, 'Because we're actually just, like just going through the motions'. Well, you know, 'Ask yourselves, is that good enough?'" (Interview 5)

Similarly, Karen was observed stopping sessions to challenge the players' work rate between sets of activity by asking questions including, "How long do you think it's taken you to complete one lineout?" (TD14). In these ways, questioning synthesised various outcomes that would otherwise require multiple behaviours to achieve the same effect; questioning served to highlight Karen's dissatisfaction with players' performance (e.g., scold skill), to motivate the intensification of effort (e.g., hustle) and to elicit the technical points for the improvement of a technique or skill (e.g., correction).

Reflecting a trend throughout the findings, Karen felt a balance had to be found when using questioning. Specifically, she felt the value of using questions needed to be balanced against the time taken to ask them, which could otherwise be spent by the players actually practicing skills, techniques and tactics. This perhaps explains why even questioning, Karen's most frequent interaction with the players, accounted for a relatively small proportion of her overall behaviours. Reflecting upon this, Karen summed up her reason for carefully choosing when to "step in" to ask a question:

"On one occasion, I didn't feel like I could have questioned any more without the thing coming to a standstill... There's questioning and then there's activity. I think my biggest balance is questioning, let's get on with it and then we'll stop and we'll speak about it. Because I just watch so many sessions and if I was a player there I would be absolutely potty because, 'You keep asking me questions, but I actually want to *do* and then maybe I'll figure out the answers through *doing*. And then, if I can't figure them out through doing, fine we'll maybe have to stop and speak about them'." (Interview 19, original emphasis)

Moreover, she explained that she saved some of her questioning for after training, during off-pitch interactions, in order to maximise the time players had to actually do activities whilst on the pitch:

"We're just going to lose all that momentum, maybe a good bit of positive energy around things. You can do that across... you can maybe ask that question at lunchtime. It doesn't have to be [that] we're going to stop everybody

and everything to just hone in on whatever it is that needs to be questioned.”
(Interview 19)

Furthermore, just as Partington *et al.* (2014) reported, Karen described the value of sometimes using more direct behaviours (e.g., correction, technical explanation) with individual players in place of questioning, particularly in view of her time pressures and the need to attend to the whole group:

“Sometimes you will get the answer, but I think sometimes you might have asked four, five questions and they genuinely can’t answer you. You know... how long are you actually... there’s twelve other players here... Again, it’s a balance.” (Interview 19)

Indeed, Karen recalled her decision during TD2 to interject in what became an extended discussion among the players after she had asked an open question:

“I’ve changed there because we’ve started... now we’re in, sometimes I refer to it as women white-noise mode. We’ve now gone to the extreme of we’re [the players] actually speaking masses more... [but] let’s see how much activity we’ve seen from that first phase.” (Interview 5)

Here, Karen cut off a discussion among the players, which she felt would be less beneficial to them than getting more time to actively practice a solution for real. Thus, questioning though clearly important to Karen’s philosophy and practice in the preparation setting also had to be balanced against her belief that players need time to “do”, and that through such “doing”, they might “figure it out for themselves”.

Finally, in contrast to skills activity, which she identified as a context particularly suited to questioning behaviour, Karen felt that matches allowed limited use of questioning. Karen explained that during match play, even those associates who were allowed onto the pitch had little time to use a questioning approach:

“...yeah, just because of the time constraint. You’re on, water, off.” (Interview 7)

However, this did not mean that questioning had no place in the time-pressured environment of the competitive setting:

“... that’ll [questioning] come in far more at half time. We’ll say, you know, ‘What are you seeing? What are you feeling in the scrum?... What is it you know and we know that we think can put that right?’ And nine times out of ten they’ll come back with something. Now sometimes it’ll be right and sometimes it’ll be, ‘Okay, we can do that, but the other option is...?’ Like last night, there was a few of them came out with some things about, ‘Yeah, we can hold the scrum straight or we can...’ ‘Yeah, but what’s the option B...?’ So, I think questioning at half time is quite a big thing.” (Interview 7)

Reflecting the sentiments in this quote, questioning at half time was found to be used for the purposes of drawing solutions to technical and tactical issues out of the

players, rather than simply dictating them as a coach. Indeed, Karen explained during casual conversations that it would be silly to ignore the knowledge and experience required of players to compete for Scotland Women. Thus, questioning was also used when Karen was uncertain of the causes of a problem. For example, Karen recalled her use of questioning during the half-time break of Scotland Women's game against Italy:

"Our line speed isn't good enough... 'Grace, what are you doing? And more to the point, what are you doing at twelve, Claire, and you doing at thirteen, Jade?' That's where the problem is coming from." (Interview 15)

Therefore, although matches offered fewer coachable moments than training sessions (Trudel *et al.*, 1996) and included the limitations of time and physical proximity when coachable moments did occur, this did not mean that behaviours such as questioning were irrelevant.

5.6: SUMMARY

By investigating the coaching process across three time frames (before, during and after practice), this chapter has developed a more nuanced, micro-level picture of the interactions between coach, associates and coaching context. Specifically, it has shown how these constituents of the coaching process and their properties served to shape the *what*, *how* and *why* of Karen's actual coaching practice. Generally, the picture developed of Karen's practice was of a less interventional and instructional approach than has typically been reported in the literature. For example, Karen utilised a greater mean proportion of game-like, Playing Form activities than Training Form activities over the course of the season. Furthermore, the proportion of Playing Form activities increased as the season progressed towards its competitive conclusion, with almost no Training Form activities included in some sessions. In addition, long periods of her on-field activities were spent observing the players in silence and conferring with associates. This reflected the managerial overview of the coaching process that Karen associated with the role of being a head coach. When Karen did interact with the players, it tended to be through questioning behaviours, which aligned closely with her philosophy to empower the players and prepare them for the realities of competition. Moreover, questioning and other behaviours (e.g., praise) associated with creating a positive learning environment were found to be

most frequent in Training Form activities. Each of these findings contrast with existing studies, which suggests further research that contextualises coach behaviours according to the activities and tasks of training and matches is required.

The findings challenge the notion that activities classified as Playing Form will always be more relevant to competitive performance than Training Form activities. Karen was found to vary the constraints of both Training Form and Playing Form activities to make them as match-like as possible. Moreover, she was critical of some “games” traditionally used in rugby training, which she perceived to be less game-like than their potential classification according to the RCABI (Playing Form) would suggest. Thus, in response to Low *et al.* (2013), who stated that, “Training Form activity is predicted to lead to lower amounts of skill transfer to match-play compared to well-designed Playing Form activity” (p. 8), future research might more critically examine the congruence of different types of Training Form activities and Playing Form activities to competition. Accordingly, the classification of activities into Training Form and Playing Form categories can provide a useful framework to describe the broad structures of coaching practice - essentially *what* the coach does. However, complimentary methods such as participant observation and stimulated recall are needed if more detailed pictures of *how* and *why* coaching activities are set up and delivered are to be achieved. In support of such an endeavour, future research might examine the ways in which coaches successfully manipulate task constraints (see Passos *et al.*, 2008) within both Training Form and Playing Form activities to bring about optimal transfer to competition.

Various off-pitch activities were also highlighted for their role in the coaching process. This extends the extant literature on *what* coaches do, which has frequently only examined their on-pitch work or has isolated off-pitch aspects from the broader coaching process (e.g., Groom *et al.*, 2011; Groom *et al.*, 2012). Further attention should therefore be given to coaching as a holistic process, inclusive of a broader variety of interactions between the coach and their associates. The present findings also suggest that the nature and scope of the head coach’s role in top-level rugby union includes more than just managing their practice towards players. For example, Karen was found to intervene in the practice of her assistant coaches and other staff as she orchestrated the whole coaching process. Thus, the relations

between head coach and assistant coach, and with other support services, in collaboratively constructing coaching practice are highlighted as a novel area of interest for future research.

In terms of *why* Karen coached in the ways that she did, this chapter builds upon the last by highlighting further detailed interactions between personal factors (e.g., philosophy), her associates and various contextual factors. For example, although she espoused maintaining full-contact rules in training activities, Karen's practice was also found to incorporate some non-contact training tasks. When confronted with this paradox, rather than demonstrate a lack of self-awareness typically associated with gaps between coaches' espoused and actual practice (e.g., Partington and Cushion, 2013), Karen acknowledged that the unfettered implementation of neat plans was simply unrealistic in the complex realities of practice. In dealing with this complexity, Karen, like the Olympic sailing coaches in Saury and Durand (1998), operated from plans that included contingencies, used organisational routines, incorporated on- and off-field flexible adaptation, utilised past experiences as a guide, and worked in collaboration with associates to control the coaching process. Thus, Karen demonstrated flexibility within boundaries; or to put it another way, her practice was akin to regulated improvisation (Bourdieu, 1977).

Karen's regulated improvisation demonstrated sensitivity to the dynamic nuances of the coaching context, as well as a strong sense of what was best for her players. On the one hand, Karen's more enduring dispositions, her habitus, had been established through extensive coaching experience, as well as watching, discussing and debating her work with other coaches, and through her engagement in coach education and development activities. Yet, at the same time, Karen continuously tuned her practice to the context, "testing the edges" of her underlying coaching philosophy (Cassidy *et al.*, 2009 p.62). As part of her own reflective trial and error, these new experiences were integrated into Karen's habitus, leading to an evolving profile of practice. Thus, Karen's coaching practice was both *modus operatum* and *modus operandi* (Bourdieu, 1977); it was inescapably informed by her previous practice and would go on to inform her future practice. Indeed, rather than being fixed, or as she put it an authoritative "bible", Karen's coaching philosophy was continuously reinforced and also modified as she continued to engage in the

coaching process (Cushion and Kitchen, 2011). Further consideration is given to the reasons for consonance and dissonance evident between Karen's intentions and practice in the following chapter.

THE COACHING PROCESS AND THE RESEARCH PROCESS: A COLLABORATIVE, REFLEXIVE RELATIONSHIP

6.0: INTRODUCTION

The aim of the present research was to develop a more authentic understanding of the relationship between coaching practice and the holistic complexity of the situated coaching process by examining, in detail, the site of practice itself. In order to understand the subjective nature of experience in the context of time and space, I undertook a personal commitment to “being there”, to directly connecting with Karen and her world (Murchison, 2010). In this sense, I subscribed to Atkinson and Hammersley’s (1994) view that, “we cannot study the social world without being part of it” (p.249). Moreover, coaches are known to be, “social beings operating in a social environment” (Jones *et al.*, 2002 p.35). Thus, by entering the coaching context in order to understand the social complexities of Karen’s world, I became, according to the components of the grounded model, one of her associates. In other words, just as her assistant coaches and players were found to have done, I too could have influenced Karen’s experiences, meaning and practice. Much as I have endeavoured in this work to develop a picture of the coaching process according to Karen’s construction, reconstruction and reflection, it has inevitably been shaped by my interactions with her, her associates and the coaching context (Seidman, 2006).

I was the primary instrument of data collection and analysis during this project; I made observations, took fieldnotes, asked questions and interpreted responses. Indeed, the picture of the coaching process contained in this thesis was developed from experiences and interpretations *in* the coaching context, within the social world, and not in isolation from it. I therefore consider myself to have simultaneously been a member and observer of the social situation I studied. I was thus involved in both the construction and the collection of data (Davies, 2008). Accordingly, my research has been, “co-constituted, a joint product of the participant, researcher and their relationship” (Finlay, 2002a p.212). This means that it has been

shaped by my own social history, biases and knowledge, as well as the situational and social constraints of the research context (Hammersley and Atkinson, 2007; Denzin and Lincoln, 2011). These collective considerations bring attention to the infinitely layered and interwoven nature of my research, and to the need for myself to be present in the text just as I was in the field (Lawless, 1992). By understanding my research approach as a social action, it is necessary for the mutuality of the researcher-participant relationship to be further explored.

The purpose of this chapter is to reflexively examine the situated interconnections and mutual influence that developed between the research process and coaching process and between Karen and me during my time in the field. It is about paying attention to the way I paid attention (Cassidy, 2007) and becoming aware of what allowed me to see, as well as what inhibited my sight (Michalowski, 1997). In other words, it is about interpreting my experiences in the field in order to question how those interpretations came about (DeVault, 1997). Thus, this chapter seeks to identify how my thesis has been shaped by my research methods, research context and evolving relationship with Karen (Finlay, 2002b). Moreover, it is about understanding the limitations inherent in trying to develop a holistic, situated picture of the coaching process in action.

At the same time, it should be remembered that throughout this research I have tried to make Karen a more active collaborator in telling her own story. I have asked Karen to elucidate her philosophy, to reflect upon and explain her practice, and I have shared with her aspects of my data. As such, the research process was likely a transforming experience for my participant, much as it was for me (Davies, 2008). Consequently, it is important that responsibility is taken for the influence of the research process on Karen's coaching practice; to acknowledge the interpersonal dynamics of the research process. This chapter therefore draws heavily upon collaboratively reflexive interviews and analysis (see *Chapter 3*) in addition to the broader methods of this ethnographic study. The object of this collaboratively reflexive project is not to discredit what has been found but, "to check and strengthen it" (Bourdieu, 2004 p.4).

6.2: ENTERING THE FIELD AND BUILDING RELATIONSHIPS

I first entered the coaching context at a pre-season selection match for potential Scotland Women players. Despite being granted access by SRU representatives and by Karen during the months before the start of the season, I had anticipated that I would encounter, as Cushion (2001) found in professional football, caution regarding my motives and a concern for protecting the new ideas, training methods and tactics that Karen had brought with her to the team. I presumed that I would initially have to observe from at least some kind of literal and social distance; to have to earn Karen's trust before I had access to the inner workings of her world (O'Reilly, 2009).

However, Karen immediately took me to sit-in on a private meeting with a local club coach where she had to negotiate a delicate history between the SRU and the clubs including competing egos over who should ultimately determine players' developmental priorities and best playing positions. Then, after the meeting, we watched the trial match together in the stands, and I was party to post-match discussions about the players who were "ready this year", as well as those who would "never cut it at this level". To me, this all seemed an early and very public indication that I would be granted almost unrestricted access, and that I should be considered by the other staff to be "part of the team". Indeed, Karen reflected that I had to dive in to her world at the deep end and be fully immersed, or not at all:

"...if you're going to do something in my world, if you're going to do it, you've got to do it right. So, it couldn't be something that I went, 'Yeah okay, right we'll try and fit that in'. I had to be really clear from the word go... I said, 'Right, Ed is going to be around and it's not going to work any other way'. So, that means you're not picking and choosing and there's no falsehood on my part in what you're seeing." (Interview 19)

Being so immediately included in all matters related to Karen's role allayed some of my fears about relational rejection (Prus, 1997). Yet, I was also aware of the fragile access often granted to ethnographers (Hammersley, 1992), and that Karen was the primary gatekeeper to the coaching process (Schensul *et al.*, 1999), meaning that my research plans would collapse without her continuing agreement. Consequently, I carried concerns for my affiliation or isolation from Karen and her associates throughout my time in the field.

In order to counter my concerns, efforts were made to develop rapport and mutual trust with Karen, which are essential to gaining a detailed insider perspective

in ethnography (O'Reilly, 2009). Upon reflection, Karen and I agreed that it was my background as a coach of women's rugby union that was most critical to initiating and building rapport with her and her associates. Indeed, my familiarity with the broader contexts of rugby union and women's rugby coaching in particular were essential to me being viewed, as ethnographers have been described (Robben and Sluka, 2012), as less of an intruder in the research field. With my understanding of the native language, the structures and challenges of women's rugby and the coaching role, Karen and I were able to "talk shop". For example, Karen explained:

"I can speak to you about rugby. You having an understanding of women's rugby means I don't have to sit and go, 'No, no, these women are actually holding down full-time jobs and doing this'." (Interview 19)

The value of a common biography extended to all of the coaches, allowing for ice-breaking discussions early in the research process and reducing the social distance between us over time. With Karen in particular, this helped me to develop a more meaningful relationship and, ultimately, to probe more deeply into her situated experiences (Oakley, 2003). For example, my previous experience assisted during interviews, because the precious time available was not expended trying to learn the cultural meanings, history and value of various local terminology, structures and practices. Recognising this point herself, Karen explained:

"You've got a better understanding and a better appreciation of things. Like the Six Nations Championship, why the Six Nations Championship's important." (Interview 19)

However, the benefits of my biography as I sought acceptance from Karen and her associates, and ultimately a vivid understanding of her lifeworld, was accompanied by a number of personal and ethical dilemmas.

Whilst my experience as a coach was valuable on the one hand, allowing me, for example, to empathise with the staff, on the other hand it also exposed me as someone with knowledge that could be valuable to the coaches. Bourdieu described this kind of knowledge as expert knowledge – a part of my cultural capital (Jenkins, 2002), otherwise a level of expertise that was respected and had utility within the coaching context (Raven, 2008). The following excerpt from my fieldnotes recalls an interaction with Karen that included my use of expert power in an effort to further develop our rapport. The context was a staff meeting held to discuss individual players' development:

“Karen’s next point on the agenda was Emma. There were particular concerns about her ability to learn positional skills despite, ‘A lot of one-on-one coaching time. It’s just in one ear and other the other. We’ve shown her it live, we’ve demonstrated it, shown her video of it. She just doesn’t get it. Why is she not getting it?’ Karen’s eyes met each one of the coaches around the table without reply. They then fell upon me and dwelled. I was surprised to be offered this opportunity to contribute. Some research that I had read on motor learning (i.e. Ishikura and Inomata, 1995) immediately came to mind, as did its relevance to a similar problem that I had faced as a coach. I explained my own practical experience of using demonstrations and incorporated some of the theory into my description, but without dwelling on the academic side too much. Everyone around the table seemed impressed.” (Fieldnotes, TD3)

Like many ethnographers, I was expected to contribute to the field, even in the early stages of my research (LeCompte and Schensul, 2010). Thus, just as Hellison (1997) suggested to researchers seeking genuine dialogue with practitioners in PE, I was demonstrating that I too had, “struggled with (and in) the realities of practice and [had] something concrete to share” (p.200). Moreover, research shows that coaches value opportunities to share practice (Cassidy, Potrac and McKenzie, 2006), but that they are often reluctant to share given the competitive nature of their roles (Gilbert, Gallimore and Trudel, 2009) – a point logically most relevant to Karen’s domain. Consequently, I felt that I had to give before I could receive; to have to initially demonstrate my worthiness of Karen’s trust, and then to continually renegotiate my fragile access to her world (Harrington, 2003). As such, my sharing of expert knowledge was a form of complicity that I used to break the ice and to develop rapport with the gatekeepers of the coaching process (Marcus, 1998).

Using my cultural capital provided the benefit of access to the insiders’ (emic) perspectives. However, like all ethnographers, I had to find a balance between being part of the context without going native to the point of being unable to also make sense of this data from the etic perspective (Fetterman, 2010). There was a risk that my cultural capital could have led to over-rapport, or over-identification and association with Karen, which has been found to restrict the researcher’s social mobility and analytical astuteness within the research setting (Miller, 1952; Hammersley and Atkinson, 2007). In the light of this, I adopted varied strategies during my time in the coaching context in order to maintain a balance between familiarity and strangeness (Atkinson *et al.*, 2003). For instance, I did not help to coach the players and I tried to stay out of Karen’s field of vision while she coached. Most often, I would video the action from the stands, with Karen’s voice recorded

via a wireless microphone, and I ensured that I sat next to different members of staff on the team bus and at meal times. On the other hand, I wore the same kit as the members of staff and “mucked in” with everyday manual tasks, like helping the team manager to transport equipment to and from the team’s kit store. This delicate selection of roles remained a key balancing act throughout my time in the field.

An equally significant aspect of fitting in to the research context, to which the previous paragraphs allude, was building relationships with Karen’s associates. During the research process, the assistant coaches, team manager, performance manager, strength and conditioning coach and medical staff became informants in the field (Murchison, 2010). As informants, the team manager and her colleagues gave me access to Karen’s world without me having to bother Karen for it. Reflecting together during one interview, Karen explained that my ability to gather information without unnecessary interference in her busy life was essential to maintaining rapport:

“Because you took that initiative... instead of me going, ‘Oh my god, it’s another bloody email from Ed’ or whatever. You’ve been able to identify, ‘I don’t need to bother Karen to get that information, I can get that from [Team Manager]’, the same with the boys (assistant coaches)”. (Interview 19)

For example, the assistants (often referred to as, “the boys”) frequently shared information about interactions, activities or events during casual conversations to which I did not have access; they described phone calls and Skype meetings with Karen that occurred during the weeks between training sessions. Their input helped me to comprehend the true scope of Karen’s role and to place her actions as a head coach into the broader context of the other staffs’ roles and their relationships together. In another example, the team manager acted as my cultural guide, helping me to find my way around in an unfamiliar environment. She frequently provided practical information about timings and venues, the rooms the coaches would meet in and what time they would arrive before the players, which helped me as researcher to be in the right place at the right time (Bryman, 2012). As with Karen, my expert knowledge was part of my developing relationship with the team manager, which was characterised by a reciprocal sharing of information. Specifically, the team manager, who did not have a rugby background, sometimes queried the rules and

terminology of the game with me to save airing her perceived deficiencies in understanding with her colleagues.

The players also acted as informants, but to a much lesser degree than the staff. However, they did provide the clearest indications that I had been accepted in the coaching context. Specifically, discussions with the players, many of whom were students, were initially taken up with their questions about my research motives, wanting to know, “what I was trying to prove”, in the positivist hypothesis-testing sense. Over time, these conventional suspicions of the outsider subsided (O'Reilly, 2005), giving way to conversations that more closely resembled the informal exchanges I observed between the coaches and players:

“...before long, we were engaged in rugby chat, discussing old injuries etc. There no longer seems to be an agenda to our interactions, we often just fill in time together with chit-chat about rugby.” (Fieldnotes, TD4)

The players also controlled more formal and explicit procedures for my initiation and acceptance in the coaching context. Like all “new caps” (players selected for Scotland Women for the first time), I was heckled and beckoned by the most experienced players, who always sat in the capital-bounded back-row seats, to sing a song on the team bus after the Autumn International. Performing this ritual, which reflects the wider culture of initiation and team-bonding in rugby union (Howe, 2001), was another form of complicity that, once complete, helped me to feel like less of an outsider.

Karen provided further indication of my growing acceptance and our mutual trust by sharing with me her frustrations, concerns and uncertainties. Where she maintained an air of confident authority in front of the players and other staff, she frequently let her guard down with me during casual conversations and some of my more formal research methods. For example, she confided in me her frustrations with players:

“Every Tuesday night they are doing hard, straight running exercises. And yet, we go into that [game] and not one of them [runs straight]. And what annoys me is it was ten, twelve and thirteen... Not one of them took the responsibility.” (Interview 9)

“There’s been a couple of occasions where – two, three games on the bounce now, they’re still doing the same things. Liz’s slowing up as she goes into contact and is hesitant. She’s not pinning her ears back. Abigail is not keeping width in her attacking game, so she’s killing herself.” (Interview 12)

Moreover, Karen used our private interactions to vent her frustrations with members of the staff, something that may have been risky for her to do with anyone else in the coaching context:

“They don’t realise, that’s the kind of information that I want [Team Manager] to tell me. To confirm with the medical people so that I can genuinely focus just on the coaching. At the moment, I find that I’ve got to be on top of everything else in order to be able to coach as opposed to being able to coach because I had everything else.” (Interview 10)

“I’ll say to the lads, ‘You’ve been out here for ten, fifteen minutes; could we not have, as per that plan, set that thing out’. I’ve got to chase, chase, chase.” (Interview 19)

In these examples it was my status as a neutral outsider, but with my own experience as a coach, and as someone that Karen was undoubtedly aware needed her continuing permission to be there, that positioned me as a valuable confidant. Karen reinforced this point at the end of the season when she commented, referring to her line managers in the SRU:

“We’re absolutely burnt-out, knackered and gutted that we’ve lost five games in a row; nobody came and asked us, ‘How did we feel?’.” (Interview 19)

In contrast to this, my research was directly concerned with Karen’s experiences, perceptions and feelings, and gave her regular opportunities to express herself in these terms. Thus, my simultaneous distance and closeness meant that Karen saw me as a valuable and non-threatening asset, someone to confide in who would be empathetic and listen, and someone without a local agenda, which she lacked from her other associates.

Whilst building insightful relationships with Karen, the staff and players was clearly important, I was continually mindful that the information provided by informants represents perceptions, filtered by cognitive and emotional reactions, rather than a kind of objective truth (Atkinson *et al.*, 2003). This is not to suggest that Karen or her associates engaged in conscious deception, but to acknowledge that peoples’ perspectives change and may be shaped by circumstance. For example, it was possible that victory or defeat in competition could affect different emotional responses in the coaches (Kelley, 1994), as it has been found to do for players (Wilson and Kerr, 1999). As a consequence, information from informants was clearly marked as such in my fieldnotes, cross-checks were carried out between

different sources, and topics or themes identified during analysis of informant discussions were developed into questions for follow-up interviews with Karen.

6.3: SHAPING THE RESEARCH PROCESS

Ethnographic research has been described as a dynamic, complex pursuit (Murchison, 2010) in which the researcher lacks control over the field setting (LeCompte and Schensul, 2010). As will be described, this was certainly true of my experiences in the coaching context. As a result of this uncertainty, ethnographic researchers have been advised to remain flexible in response to the research context (Hammersley and Atkinson, 2007). Indeed, ethnographers have to deal with constraints and opportunities just as coaches do, and ingenuity is required to take advantage of changeable circumstances for deeper understanding (O'Reilly, 2005). However, without paying proper attention to and accounting for the choices, changes and modifications that were made in the field, my work could have become increasingly haphazard and unwieldy in the face of such variable conditions (LeCompte and Schensul, 2010). Thus, this section reflects upon the ways in which the research process was shaped by the social and environmental conditions of the coaching context.

The complexity and scope of Karen's working and coaching life not only contributed to the idiosyncratic nature of her coaching process but undoubtedly impacted how I was able to interact with her during this research. Indeed, the competitive, dynamic and absorbing nature of her role meant that Karen felt she had limited time to personally reflect on her coaching, let alone share her perceptions with me:

"As you have seen first-hand, nothing goes according to plan, or there will be heaps of other indirect curve balls thrown in that create an awful lot of pressure, which I often feel means the coaching time gets de-prioritised, and me as an individual in that process is about 25th down in the list." (Interview 19)

Given the small number of days that the team were together, I was therefore mindful that time spent in interviews or engaged in other research methods was precious time that Karen was spending away from her role with the team. Consequently, my first question preceding each interview was usually, "How long have we got?" Moreover, having arranged to meet for an interview at a specific time after training, sometimes

the coaches would still be engaged in an essential selection meeting (e.g., TD1), or Karen would be late in finishing a one-to-one meeting with a player (e.g., TD8). On another occasion, Karen was clearly exhausted and unwell (Wales match), and knowing that we were due to catch a flight early the next morning and had a full day of training ahead, I postponed our scheduled interview so that she could get some rest. In such circumstances, by learning to see the world from Karen's point of view, I too was confronted with the difficulties and challenges she faced. I was compelled, as a result of our developing relationship, which Marcus (1983) described as a "working empathy", to consider what was best for her. Moreover, I was also aware that if my presence or methods in any way corroded Karen's ability to do her job then my access to the field could be challenged or even removed.

When we reflected upon the research process at the end of the season, Karen confirmed how important it was for me to fit in with her time constraints:

"It's never been to the detriment of the coaching time. It's fitted in... 'When is it going to be best for you?'. It's been your flexibility in that process that has probably made, from my point of view, the process completely doable... your appreciation in terms of 'Oh my god, this is not a good time'." (Interview 19)

Despite the clear importance of this empathy and of managing my impact on Karen's coaching and working life, postponing some of the stimulated recall interviews also meant that I had to adapt my plans for carrying out the research. For example, following Dempsey's (2010) assertion that SR interviews are best carried out soon as possible after recording the video, I had intended, like Kane *et al.* (2004), to conduct each SR interview within a week of videoing Karen's practice. However, there were occasions where between two and four weeks passed before an SR interview could take place. In this regard, Lyle (2003) highlighted the issue of memory decay in SR procedures. Consequently, I decided to address the question of Karen's memory of events during our reflective discussions. She felt that there is a limit to how long interviews should be left, but that the durations achieved during this research genuinely prompted her to recall decisions and actions:

"It's really interesting. I look at things and go, 'Oh, I know what's going to happen here, this is when I'm going to say...'. It's very vivid. The fact that it's on video, you can quickly go, 'Oh god, yeah, absolutely'. But, if you left it six months or you picked it up in a year's time, [it would be] pointless." (Interview 19)

Further considering the previous point, it is unclear from the literature how specific lengths of time impact someone's recall *of* an event (Gass, 2001), and I was concerned to ensure that Karen's responses did not exclusively become reflections *on* her practice (Lyle, 2003), though these are of interest to the overall study (see 6.2.3: *Shaping the Coaching Process*). Therefore, particular attention was paid to the language Karen used in the SR interviews, which then shaped the use of interview excerpts in *Chapters 4* and *5*, and in this chapter. For example, the following excerpts included terms indicative of Karen's recall *of* previous thought processes:

"I can remember thinking to myself, 'I'm trotting back and forth watching the drill'. Whereas, from my point of view, as a head coach, I'd love to stand back, but then I sometime feel like I am not coaching, I'm not doing something." (Interview 5)

"I can remember standing there, and I remember thinking, 'Amy, the reason that ball... Olivia was never going to get that ball is because you passed and your hands finished low'." (Interview 9)

"I was just conscious of like, we need to hit something decent here to give them the confidence to know it's going to work, you know. That's why I just let them keep on playing." (Interview 11)

In contrast, the following excerpts included language that suggested more reflections *on* her coaching practice:

"I think there's not a bad balance there because we're not stopping them, you know we're keeping them going, but I'm still managing to feed in little things as they're coming back to the beginning of the drill." (Interview 3)

"I think sometimes, as coaches, we get uncomfortable because we feel like we've got to be saying something." (Interview 4)

"I think we got a really good balance in the team run between, 'Switch on, let's get it right'; and then we had a bit of banter when it didn't quite work right." (Interview 9)

Moreover, I addressed this during the interviews by asking Karen if she was genuinely recalling or reflecting upon what she had done:

Karen: "...the line out against England didn't function. But that's more to do with the small technicalities in terms of these players, you know. Actually, mentally, I don't think we look mentally switched on here. Not really. You know, there's some people are, and then there's other people."

Edward: "Do you remember thinking that at the time or is that just something that the video's highlighted?" (Interview 11)

By identifying such distinctions, I was able, in a similar way to Lyle's (2002a) typology of coaching models, to separate insights from the data that represented

Karen's recollection *of* previous thought processes and those that represented more retrospective judgments or ideological justifications *for* her practice.

Due to the restricted time Karen could give up during training and match weekends, and because stimulated recall interviews can be a time-consuming process (Meade and McMeniman, 1992; Annemie, Antonia and Hilde Van, 2007), modifications had to be made to limit the duration of each SR interview. Specifically, each SR interview's total duration needed to be no more than 90 minutes, which Karen felt was, "as long as we are going to get" (Fieldnotes, TD3). Following further discussion on the topic, 15 minute sections of video were calculated to be as much as could be covered in this period. Thus, time-sampling by the researcher and critical incident selection by the participant were used to identify specific sections of video for use during SR interviews (see 3.2.4: *Stimulated Recall*). By mixing these two prominent approaches from the SR literature (Lyle, 2003), Karen and I were both involved in selecting sections of video for review, which further reflects the co-constructed nature of the research process.

Challenges also accompanied the specific procedures adopted during SR interviews. Most notably, following a process outlined by Haw and Hadfield (2011), at the start of each SR interview, Karen was encouraged to pause the video so that she could talk about her actions, thoughts and feelings. However, during the first SR interview, other than some muttered embarrassment at seeing herself on video, over 11 minutes passed before Karen paused the video for the first time. The issue of getting participants to talk while watching footage of themselves has previously been reported in the related literature (e.g., Rowe, 2009), but little guidance is available to researchers. In response to Karen's infrequent input at the start of the first SR interview, I began to pause the video and prompted her by asking if there was anything she would like to comment on. I intervened in this way occasionally during the first three SR interviews, but Karen took more of a lead thereafter, seeming to enjoy the chance to share her thoughts:

"Having done a few stimulated recall interviews now, and from the transcription that I have been doing, it is clear that initially Karen was content to just sit and watch the video. I had to use a more structured approach than planned, prompting her to comment on the video. However, she has now become quite interested in sharing her rationales, philosophy and justifications for her actions. It is like Karen has come to more clearly understand the purpose of stimulated

recall; just as I am developing my comprehension of her work, so she is developing her comprehension of mine.” (Fieldnotes, TD6)

Unlike the gaps that have been identified between theory and practice, and researchers and practitioners (Gilbert, 2007), here our efforts were cooperative. As I spent more time in the field each of us became increasingly mindful of our respective purposes in the coaching context. Moreover, our mutual care and understanding served to reinforce my sense of being an associate of Karen’s and therefore to recognise that much as she was shaping my practice, so I was shaping hers.

The present research has argued for the use of complimentary research methods in pursuit of developing a more comprehensive picture of the holistic coaching process. Thus, my work has attempted to answer the calls of Potrac *et al.* (2000), among others (e.g., Potrac and Jones, 1999; Jones *et al.*, 2002), to produce thicker, deeper and broader understanding of situated coaching practice. Here, I have applied the term *holism* in the Aristotelian sense of looking at the whole coaching process rather than focussing only on a selected component within the whole. However, while I set out in the hope of developing, as much as was possible, a complete picture of Karen’s coaching world and a fuller appreciation of its complexities, I came to question how comprehensive it could be. Just as I have been critical of the limitations of other authors’ work (e.g., Côté *et al.*, 1995c), how close to the true breadth and depth of Karen’s could I get?

As previously identified, I was granted unprecedented access to the top-level environment of a national women’s rugby team, and Karen was open from the start to me being a part of what went on in her world:

“I think our approach as a coaching team was you’d be very much part of the coaching team. And I think by virtue of doing that you’re seeing warts and all. You’re seeing the *whole*, you know. I think it gives you a better idea and a better appreciation of what the [Karen’s] job does entail.” (Interview 19, emphasis added)

However, despite Karen’s intentions and my sense of acceptance within the research context, I was not included in every aspect of the coaching process. For instance, early in the research, I was asked not to attend a meeting originated by the performance manager during the team’s preparations to play the Autumn International:

“The performance manager called a meeting with the coaching and management staff. However, she asked me to sit out, she said because, ‘We

will be discussing sensitive player information'. As we sat down to eat together before the meeting was due to start, in passing, Karen mentioned the meeting and seemed surprised that [Performance Manager] had excluded me." (Fieldnotes, TD2)

I was subsequently told by Karen that the meeting had been held to address a highly sensitive player issue as well as the matter of one strength and conditioning coach's perceived lack of enthusiasm during warm ups (see 5.4.1.2: *Match Day Warm Ups*). It seemed that the performance manager, more than anyone else, was initially wary of what would end up in this thesis. This was the only example of my active exclusion from an aspect of the coaching process, but at the time it served to remind me, as Laverick (2010) identified, that various gatekeepers can control access to the research context, and that mutual trust and rapport may have to be developed with more people than just the central protagonist.

There were other aspects of the coaching context that I was not explicitly excluded from, but which I understood to be off limits to me as an observer. For instance, I was mindful of my presence in the team's changing rooms. While Karen, the team manager and team doctor among other female staff and officials entered the player's changing rooms at will, I took my guide from the male assistant coaches, only following them after they had checked that it was okay to enter. This meant that I was not party to Karen's interactions with players as they changed. Indeed, in this situation it might have been an advantage to be a female ethnographer (Tiger and Fowler, 2007). Beyond this, Karen and I agreed that the coaching process is simply too complex to capture in its entirety. It was impossible for me to be present for all of Karen's interactions with her players, assistants and other associates. Addressing this issue during an interview at the end of the season, Karen identified examples of situations that any ethnographer of coaching would never see:

"Even if you filmed everything, there'd be still things that you wouldn't see. You wouldn't see one-to-ones on phones during the week. You wouldn't see one-to-ones where you're just like, somebody's grabbed me for a quite minute somewhere in the corridor or, you know, getting on the bus. You just will not be able to see everything." (Interview 19)

Indeed, my access was only to the coaching context, not to Karen's whole life. Consequently, I missed discussions that she had with players who also played for her club side, Richmond RFC, and with those whom she phoned or emailed from her home:

“I’ll regularly pick-up the phone to players and say, ‘How did you play at the weekend’.” (Interview 1)

Similarly, despite being included in most staff emails by virtue of being added to the central distribution list, I missed out on emails between Karen and her assistants.

This became clear when Karen described some of her communications in subsequent interviews, which I had not originally been party to:

“During the week, I’d spoken to the boys about the drills. Nine times outta ten I’ve been able to say, ‘This is what we were doing, does that make sense?’ They were like, ‘No I didn’t get it’. So the boys were like, ‘Can you just send us a bloody schematic through during the week’.” (Interview 12)

“This is now the off-season, right. And we’re still spending loads of time speaking, corresponding.” (Interview 19)

A further limitation arising from the difficulties of conducting research in the complex realities of the coaching context was that the clear and complete recording of Karen’s behaviour was not possible at six training days and three match days. Like DuFon (2002), my concern for protecting the equipment from the weather, as well as the audiovisual distortion caused by wind and rain, limited what was recorded on some days. Furthermore, on the three match days, interference caused by the digital transmission signals of other broadcasting media meant that none of Karen’s verbalisations were audible on the video footage. Although the behavioural data gathered were representative of the overall proportion of training to match days across the season, further recordings would have added depth to the analysis of training-to-training, match-to-match and training-to-match variance in coach behaviour. Thus, future studies utilising wireless and digital recording methods, particularly in the top-level or professional performance domains, should consider contingencies to deal with the issues I faced.

It is also important to address the absence of a “transition” category within the RCABI, especially as this category was recently included by Low *et al.* (2013) in their adaptation of Ford and colleagues’ (2010) time-use instrument. Low *et al.* (2013) defined transitional activities in cricket, such as drinks breaks or “padding up” according to their lack of focus on cricket or fitness. The resulting duration of transitional activity reported by Low *et al.* (2013) suggests that the inclusion of such a category for studies of cricket has some validity. However, in the present study, drinks breaks were an active part of the coaching time. Karen used these periods to

recap aspects of the prior activity before introducing players to their subsequent task. Thus, in the present study, time during drinks breaks was classified using the existing activity categories of the RCABI. In other words, they were not classed as an isolated, off-task aspect of Karen's practice. Furthermore, as Karen spent a large proportion of warm ups setting out equipment (management behaviour), minimal time was required to move or transition from one activity to the next. Moreover, Karen did not always interact with all of the players, all of the time during drinks breaks. Sometimes she spoke only with one or two individuals, or only with her assistant coaches. Consequently, though Karen was rarely off task or not engaged in some aspect of the coaching process, there may be a case for future studies to include a category accounting for individual players's transitional activity. Such a category could perhaps be modified from Cushion and colleagues' (2012c) "management/transition state" classification, which would record the time players spend "off task" or stood still between phases of actual (physical) practice.

Another consideration, based upon the analysis of Karen's behavioural data (see Table 4.0 and Table 5.0), is the proportion of behaviours coded as "other" according to the RCABI. Overall, 2.08% of Karen's on-pitch interval behaviours were coded as other, while during matches it was her fourth ranked interval behaviour, accounting for 4.79% of her actions. Yet, almost all of Karen's behaviours coded as other were related to her taking notes during matches or referring to session plans during training. This is a feasible, even likely behaviour among other coaches and therefore warrants consideration in any future adaptations of the instrument. Indeed, the incidence of uncodable behaviours could be reduced with the inclusion of a new category, "note taking/checking". In each case, our reflections upon the limitations of this work confirm that I cannot claim to have captured a complete and truly all-embracing picture of the coaching process, just as no method can tell us everything there is to know about any phenomenon (Hammersley and Atkinson, 2007).

It is important however, not to overemphasise the constraining nature of challenges experienced in the coaching process; Karen's coaching context also offered a number of opportunities that aided this research. For example, being an interested outsider, sensitive to people's feelings, perceptions and experiences, in a

context where Karen reported experiencing loneliness and isolation, as other female coaches have reported (Thorngren, 1990; Allen and Shaw, 2009), was extremely valuable. It helped to engage Karen with the research methods and prompted her to be open when talking about her coaching practice. Relatedly, having shared biographies was also an advantage. For instance, having both recently attended the UKCC Level Three coaching course Karen was keen to discuss her experiences:

“I learned about things that we hadn’t covered off as a coaching team that made me think about substitutions, for example. You know, what are we going to do if our nine gets binned? What if the nine and ten get binned? A lot of what-if scenarios that as a team we hadn’t worked through that we need to, which doesn’t surprise me because of the other things we had to work through last year.” (Interview 18)

This allowed me to probe how Karen’s experiences of the present research methods were similar and different from other learning experiences that shaped her practice. Thus, Karen explained how the videos of her coaching practice in this research were more natural and less contrived than the one she had submitted as part of her application to complete the Level 3 coach education course:

“I’ll tell you where the striking difference is for me: when I was doing the video for my Level 3. I was very aware for that exercise that I was on video delivering this section, which was really contrived. Whereas, when I look back at that lineout thing where they [players] all don’t know what they’re doing. Looking at my adaptability to get that game right and then having a bit of banter with them. Eventually getting the end result that you wanted. The adaptability in that video was less contrived.” (Interview 18)

Here, Karen alluded to how accurately she felt I was capturing her natural coaching practice, a point that is further considered in the section which follows.

Another benefit of undertaking research in this particular coaching context was that so much time was spent travelling to training and matches that I was able to build rapport in naturalistic ways. For example, hours spent on buses, in planes and waiting at airports allowed me to pass the time, just as the players and coaches did, by getting to know people and particularly Karen better. Like Berreman (2012), this often took the form of timely and innocuous conversations about the weather, our families and past rugby experiences, which helped me to develop the “working empathy” with Karen and many of her associates that Marcus (1983) talked of. In addition, the length of time between Scotland Women events meant that data gathered at one training weekend was usually reviewed, transcribed or coded and into the iterative stages of analysis before the next training weekend. This meant I

could complete SR interviews as soon as Karen was able, and that my analytical interpretations were always fresh in my mind when gathering new data with the team. Thus, I felt I remained familiar not only with the data throughout my fieldwork, but also with my ongoing analysis, such that I was able to consider, as Whyte (1981) advocated, how new data would be coded or used as I observed and recorded it in real time.

6.4: SHAPING THE COACHING PROCESS

Despite not setting out to intervene in Karen's coaching in the same sense that an action researcher might (Knowles, Gilbourne, Borrie and Nevill, 2001; McNiff and Whitehead, 2002), I was aware from the outset that my research methods could shape her practice. For example, the potential for video-based methods to stimulate not only recall, but also coaches' reflections upon events and behaviours has been highlighted in the coaching literature (Lyle, 2003; Carson, 2008). Moreover, as the principle research instrument of this mixed-methods case study, I knew that it would be impossible to conduct value-free interpretive research (Denzin, 2001). Instead, ethnographic research is the coming together in unique ways of the researcher's persona, comprised of their personality and biography, with the particular people and places that they study (Wolcott, 1999). Consequently, in relation to Karen, with whom I spent as much time during the season as her assistant coaches, I could be conceived to be a "significant other" (Katz, 1983); another one of her associates, according to the grounded model of the coaching process (*Figure 3.0*). Thus, just as the assistant coaches and others were found to have done, I must account for how I shaped her practice. Accordingly, this section, in further considering the mutual influence of the researcher and research field upon each other (Cutcliffe, 2003), pays particular attention to how the research process shaped the coaching process.

Just as being a part of the field is fundamental to ethnography, so the impact of the researcher's presence on the field's natural course of action is a concern for ethnographers (O'Reilly, 2012). The potential for people to modify their behaviour in response to being observed in research settings is known as the Hawthorne effect (Moberg, 2013). Strategies to minimise the Hawthorne effect have been proposed, a number of which I undertook in the present research (see 3.2.3: *Systematic Practice*

Observation and 6.2.1: Entering the Field and Building Relationships). For instance, I spent an extended period of time in the field, which had the effect of allowing me to blend into the scene, being less obviously an outsider (O'Reilly, 2012). However, these strategies did not prevent the impact of my presence being a lingering concern, which I addressed with Karen directly in our later interviews:

Edward: "One of the difficulties that I've had... the choices that I've had to make all the time has been about how close do I put myself to the action. Do I stand next to you? Instead of having the video and the mic[rophone] on. Do I sort of hover around and take my own impression of things? How close do I put the video camera?"

Karen: "I think your positioning, wherever you are, I certainly wasn't conscious of it. Therefore, there's no way it affected my behaviour because... I think that's where that microphone thing really worked. I think I'd have been far more aware of you here [pointing next to her], because very rarely am I standing still. I would have been probably more conscious of you." (Interview 18)

Indeed, she reflected further upon the habitual familiarity of my presence and of the value of using a wireless clip-mounted microphone during training and matches:

"Every session you used your mic[rophone]... pops it on, [I] totally forgot about it. It was habitual as opposed to, 'Oh shit, the microphone's on'. You can't help yourself, because after about two minutes, you're just so busy. (Interview 18)

Yet, to further investigate this point, I probed Karen about how things might have been different if I had only been able to attend selected sessions during the season, in the way systematic observation has often been completed (e.g. Claxton, 1988; Partington and Cushion, 2013):

"The other way is, 'Right, Ed's coming this weekend, we'll all be singing and dancing' or, 'Ed's coming on session three. Right, so we'll make sure that the plan's in place'." (Interview 18)

Thus, without my ongoing interactions as a member of the field and the rapport I consequently developed, it might have been that Karen and her associates presented a "false front", in the same way that coaches and PE teachers have been found to manage the impressions of tutors in formal education settings (Chesterfield *et al.*, 2010). This would have created a less accurate portrayal of the coaching process, so it was reassuring that Karen felt it had taken little time for my presence to become familiar enough to not be disruptive (Angrosino and Mays de Pérez, 2003).

It is not unusual for reactivity (people changing their behaviour due to the Hawthorne effect) to reduce as the researcher spends more and more time in the field (Bernard, 2011). Indeed, Karen's perceptions in this regard were only accessed in

our penultimate interview discussions, which took place months after I had first entered the coaching context and when our mutual trust and rapport had been firmly established. Consequently, participant reactivity may help to explain some of the subtle inconsistencies between Karen's subsequent coaching practice and the coaching "philosophy" she expressed in our initial interviews. Specifically, Karen stated at the outset of this research that she believed in the Game Sense philosophy of coaching; yet, a "pure" implementation of the Game Sense approach was not found⁸. In part, this has already been explained by the need for Karen to remain adaptive and responsive to the various constraints and challenges of the coaching context. Furthermore, she showed a critical appreciation of the value of different activities for player learning (epistemology), and highlighted how both Training Form and Playing Form activities could incorporate match-realistic conditions including rugby's laws, its physical interactions and its spatio-temporal variability (see 5.5.1.1: *Training Sessions: Implementing a Game Sense Approach?*). However, it is also possible that Karen, like some of the young Samoan women in Mead's (1928) significant but controversial work (Moberg, 2013), talked in a reactive way during our initial interviews, because she felt Game Sense was the "right" thing to say to me, a fellow rugby coach. These considerations add to recent work that has advocated a more philosophical interpretation of coaches' "philosophies", but which also recognises the difficulties for research in unpacking their deeply-held beliefs (e.g., Cushion and Partington, 2014).

The origins of Karen's reactivity, I suggest, could be found in our similar habitus, which structures people's reactions to specific circumstances (Light and Evans, 2013). More specifically, as Cushion and Kitchen (2011) noted:

"Because habitus is acquired as a result of occupation of a position within this world, not everyone has the same habitus; however, those who occupy the same positions will tend to have a similar habitus." (p.43)

Karen and I had both coached top-level club rugby, and we had both progressed to the same stage of the UK's rugby union coaching qualifications, throughout which Game Sense is actively promoted (Reid, 2003; Light, 2013; Harvey and Jarrett,

⁸ It should be remembered that features indicative of the Game Sense philosophy (see Light, 2004) were frequently evident in Karen's coaching, including: prevalent use of Playing Form activity; a relatively high proportion of questioning behaviours; and generally few interventions in the players' practice.

2014). Thus, Karen was perhaps conscious of the Game Sense philosophy's ideological, social acceptability in rugby union during our earliest interactions, when our rapport was not yet fully established. Indeed, the neatly packaged and widely promoted notion of Game Sense, though later found to not be a complete description of her coaching practice, likely offered an accessible and preferable means for Karen to express her coaching philosophy to someone who was asking her to elucidate what she intended to do.

Considering the above point further, there are no clear guidelines about the amount of game-like activity that should constitute Game Sense coaching practice. In fact, Game Sense is open to flexible interpretation (2004), with some commentators simply advocating a greater proportion of Playing Form than Training Form activities, while a more radical view suggests the excision of Training Form activities all together (Williams and Hodges, 2005). Given these issues, it is hardly surprising that Karen's practice was not an exact match with every aspect of her stated philosophy. Indeed, when the attainment of performance excellence for athletes is dependent on a complex "recipe" of preparation, of which the right kinds of activity is only one part (Williams and Hodges, 2005), it is logical that the coaching process would be a dynamic composite of different activities and behaviours, principles and practices. In other words, it is unlikely that any reductive jargon (e.g., Game Sense), even if it is based upon an empirically derived and conceptually underpinned practice principles, could best encapsulate what is a highly complex, variable and context-dependent endeavour. This is why it was only through extensive observations, follow-up interviews and probing that a more comprehensive explanation of Karen's coaching practice was developed. Accordingly, just as all the complexity and detail of the coaching process cannot be captured in reductive models (Cushion, 2007a), so the vagaries of coaching practice may not be as comprehensively captured in practitioners' philosophical statements as has been advocated (e.g., Lyle, 1999b). Therefore, as Cushion and Partington (2014) only recently advocated, but as this study has demonstrated, "philosophic investigation must be conducted over time (i.e., longitudinally), be based in situ (grounded in practice) and use a range of methods to highlight and attempt to move beyond coaches' subjective perceptions" (p.13).

With reference to establishing the consonance of coaching practice with philosophies and intentions, self-modelling using video footage has been widely reported as a means of learning and development in various disciplines (see Dowrick, 1999; Hitchcock, Dowrick and Prater, 2003). Furthermore, Carson (2008) found that analysis of video helped to facilitate the reflective practice of developing sports coaches. In the present research, video was used during stimulated recall interviews in order to access Karen's concurrent thought processes. However, like Carson (2008), the video-based method also stimulated Karen's self-reflections. In simple terms, Karen was confronted with aspects of her coaching practice that she wanted to change:

"There's some definite things that I've learned throughout the process this year. I've gone, 'Oh my holy god, what on earth was I thinking about' or, 'Oh actually, I could think about doing it that way'." (Interview 18)

"I saw these things in myself that I didn't like. Yeah, in some instances I didn't like but in other instances I said, 'Actually, I can do a better job of that'. So, it's really made me refine and really hone in on little specifics, not just big general sweeping statements." (Interview 18)

Specifically, Karen focused upon her body language and behaviours, and the way these things were perceived to have influenced her players. This involved explicating specific aspects of coaching practice that she wanted to develop (discussed further below), as well as taking a broader overview of the coaching process:

"It enables you to go, 'Have you got the balance right?' Like I say, it's being able to look from the outside in. I always say to the players, the video never lies." (Interview 18)

Thus, in relation to her role frame (see 4.3.2: *The Coach's Role Frame*), the video footage provided Karen with a micro-level focus on her practice but within a wider-angle overview of their specific contexts. Therefore, in terms of engaging her in the research methods, watching video enabled Karen to adopt the broad, managerial oversight of the coaching process she perceived to be a key part of the head coach's role, as well as to focus on her coaching practice, which she felt she had little time to do outside the research.

During the SR interviews, Karen highlighted certain behaviours that she wished to change in some way, which then became a focus of her attention in subsequent interviews as she tried to examine her practice over time. Most notably she identified several aspects of how she had given feedback to players during

training sessions. Firstly, in Interview 3 Karen highlighted that she wanted to use players' names to make feedback more individualised:

"I suppose I could have, you know, let them run a couple of lengths and then just picked out, I dunno how many's there, about twelve, maybe about three or four and said, 'That was a lot better'. Because some people, you know, not everybody's doing it. So, I suppose, it's making it... you could pick out names and be far more specific." (Interview 3)

Comparing Karen's perceptions to the RCABI data, overall 14.81% of her behaviours were accompanied by use of name, which is broadly similar to other coach behaviour studies (10.33% Cushion and Jones, 2001; 13.10% Potrac *et al.*, 2002). Secondly, Karen showed her annoyance at giving more general rather than specific feedback:

"The only thing that I'm annoyed at myself for doing there is I've gone, 'Good stuff'. And I've heard myself saying that instead of saying, 'That was good, *that* was good.'... 'Emma, your foot movement's good'... I hadn't been as specific as I would ideally like to be." (Interview 8)

In this instance, Karen's perceptions were supported by the RCABI data. Her provision of non-specific praise across the season (7.26%), which combined concurrent praise and praise at skill attempt categories of the RCABI, was over double the proportion of more specific feedback (3.07%), which incorporated concurrent positive feedback and positive skill-specific feedback categories. Finally, Karen identified that her tone of voice during TD1 sounded particularly harsh as she tried to ensure the players could hear her feedback over the very windy training conditions:

"I can also see the bloody howling wind, because I can hardly hear myself... I need to get them in and just completely change the tone of my delivery there because it sounds like I am really angry at them." (Interview 3)

The analyses conducted did not consider Karen's tone of voice.

Karen acknowledged that she had never considered her coaching practice in such detail before the SR interviews, nor had she ever used video for self-modelling purposes. Explaining this, she cited a lack of time to reflect upon her practice. Moreover, she felt that attending formal coach education courses had led her and other coaches she knew to give more attention after training to reviewing and reflecting upon the players' activities than upon *how* she had coached:

"I don't think a) necessarily you make time, b) how do you get the opportunity to stand on the outside and look in? I don't think a lot of coaches do that. I think

coaches look at the content of the exercise and look at what the players are doing; as opposed to looking at what they're doing." (Interview 18)

Consequently, Karen perceived the SR methods had had a significant and positive effect on her coaching practice. Specifically, during the post-season interviews she stated, "I'm using first names, you know, like being more specific" (Interview 19). Moreover, she believed that she reduced the proportion of generic "well done" types of feedback given in training sessions. In fact, she was convinced by the utility of video-stimulated reflection, and highlighted the potential value of the procedures for professional coaches, particularly as a means for head coaches to facilitate collaborative reviews of their assistants' delivery:

"If you are professional rugby coaching and you're coaching every day, there might be one down day during the week or something, but it's built in to your week to look at, 'Look at our roles here, boys. Look at our coaching content', 'Let's look at how are we delivering'. You know, it should be part of your review process, really." (Interview 18)

So, Karen believed that the research process had positively influenced her coaching practice, but it was important to check if, in what ways and to what extent I had really done so.

In order to examine Karen's belief that her practice had changed during the course of the research, relevant behavioural data from the first three training sessions were compared with the middle three and final three training sessions of the season. The proportion of behaviours accompanied by a name fluctuated across these time periods, from 16.46% to 15.27% and finally 18.13%, though the rate per minute did increase from 1.37 to 1.48 and then 1.63. This equates to around 16 more names used per hour of training towards the end of the season than at the beginning, which represents an increase of 13.91% of the mean number of names used per session over the whole season. In terms of Karen's feedback, the rate per minute and proportion of non-specific concurrent praise, which Karen had wanted to reduce, remained relatively stable (0.35 RPM, 4.67%; 0.37 RPM, 4.10%; 0.38 RPM, 4.02%), while the frequency of concurrent positive feedback, which Karen had wanted to increase, did increase over time (0.04 RPM, 0.68%; 0.11 RPM, 1.28%; 0.20 RPM, 2.26%). Moreover, non-specific praise at skill attempt generally reduced over time (0.48 RPM, 5.25%; 0.17 RPM, 1.72%; 0.18 RPM, 2.03), and positive skill-specific

feedback generally increased after Karen had identified her desire to change (0.10 RPM, 0.98%; 0.23 RPM, 2.07%; 0.18 RPM, 1.95%).

Overall, the data suggest that Karen had made some moves towards her aims of increasing use of name and making feedback more specific. However, other reasons than the intervention of the research methods could help to explain these changes in behaviours. For instance, the proportion of Playing Form activities included in training sessions were found to have increased significantly over similar time periods, and the changing proximity of training sessions to the Six Nations Championship could also have been a factor. Furthermore, behaviours that were not singled out for change during Karen's reflections showed similar variance across the three time periods. Specifically, scold (skill), which Karen had not mentioned in the SR interviews and which she had claimed not to use at the start of the fieldwork, was found to have increased (0.12 RPM, 1.42%; 0.36 RPM, 3.93%; 0.39 RPM, 4.43%). Like her use of name, this equated to around 16 additional scolds per hour of training towards the end of the season. Thus, it is impossible to say that my research methods were the sole cause of changes in Karen's behaviours. Indeed, a variety of factors may have contributed to the evolution of her practice.

In sum, being aware that my presence or methods had shaped Karen's behaviours, or at least drew attention to areas of her practice she wished to change was a confounding issue. On the one hand, I wanted to capture a natural picture of the coaching process, but on the other, ethnographic fieldwork offered the best means to achieve the analytical breadth and level of detail that I have argued the field is in need of. However, it also important to note that Karen had agreed to take part in the research for the very reason that she felt it could positively influence her practice. During our post-season interviews, she reflected that it was the performance manager, who had initially proposed the research to her (see *3.1: The Coaching Context and Gaining Access*), who raised the idea that the research methods would be a key opportunity to for Karen to reflect on her practice:

"She said, 'You would be exposing yourself without a shadow of a doubt. But the other thing is you could look at it in another light and look at it as a chance to look at your own coaching and get good footage of your own coaching. And then, you know, think about the things you do that you probably never get the time to do'." (Interview 18)

Moreover, Karen reiterated this perspective later in the same interview:

“If you’re asking your players to become better players, my motivation is to become as good a coach as I can be. Therefore, to have a process that enables you to seriously look at some genuine specifics whilst assessing the content of your delivery, whilst really looking at yourself in-depth, to pick up on good as well as bad, and then adapt your practice to get the best out of yourself and your players; I can’t see any negatives in that.” (Interview 18)

Thus, it was Karen’s belief that my presence and research methods could positively influence her practice that enabled the research to happen at all, which provides a counterpoint to typical concerns about influencing participants among social researchers. Indeed, Blau’s (1986) social exchange theory proffers that associations are induced between people based upon the perceived rewards resulting from their pairing. Accordingly, I viewed my relationship with Karen as essential to gaining the data I needed to address my research aims, and Karen felt a relationship with me could help her to develop her coaching. This point further reinforces the collaborative, co-constructive nature of the ethnographic research process (O’Reilly, 2012). Consequently, when designing methods for future studies in similar contexts, researchers should consider the importance for top-level coaches of maximising their potential for learning and impact upon the coaching process.

6.5: LEAVING THE FIELD

My time collecting data for this thesis ended in September, 2012. However, as Stebbins (1991) suggested of ethnographers, I never really left the field. For instance, Karen had become aware of aspects of her coaching practice that she wished to change as a result of the research process. Consequently, when we discussed her plans for the following season, Karen reiterated her commitment to developing three key areas of her practice:

“Not just saying, ‘That’s good’; *why* is it good and *who* is it good for? And *why* and *how* does that then reinforce something that we’ve spoken about in terms of our core key messages? It’s made me think about, ‘Right, look, our core key messages for the session is this...’; we hammer, we hammer, we hammer and then we revisit and we keep on hammering so... to simplify and focus the message.” (Interview 18, original emphasis)

“The video clearly showed me... five of a group would run through and I’d go, ‘Much better’ or ‘That’s good, much better’. What? What’s better and who’s good? Is everybody good in that group? Because everybody, those five players now think they’ve all done ‘Good’.” (Interview 18)

“I also think about the voice thing... being aware of your voice in weather. To an outside observer it looks like, ‘God almighty, you’re roaring!’ Actually there’s a

force ten gale, you know... You literally are having to raise your voice just to be heard above the elements.” (Interview 18)

Our collaborative work would therefore continue to influence her coaching practice. Moreover, I remained practically connected to Karen and her associates by working for Scotland Women during the following season as a performance analyst. Indeed, as Watt (2010) highlighted, the rapport we had developed afforded me a means of returning to the field.

A more formal detachment from the field came a year later. I continued to work with Scotland Women throughout the 2012-2013 season as a performance analyst, replacing the previous incumbent who had stepped down. At the end of another unsuccessful Six Nations Championship it was necessary for Scotland Women to attend a qualifying tournament for the following year’s World Cup. Competing at the World Cup had been Karen’s and Scotland Women’s unequivocal goal from the beginning of my research (4.3.2: *The Coach’s Role Frame*). Yet, Scotland Women failed to win enough matches at the qualification tournament, meaning Karen failed to achieve her goal. At the end of the 2012-2013 season Karen decide not to reapply for the head coach’s role. Consequently, I along with several of Karen’s other associates were not offered new contracts to continue with Scotland Women. It was only at this point that I experienced the emotions of leaving behind familiar and regular interactions with people whom I had invested so much time building meaningful relationships (Coffey, 1999).

Accompanying my sadness at the end of such a distinctive period in my life however, was an inescapable sense of relief. Finally leaving the field provided a powerful catalyst to remembering my time in it (Coffey, 1999), but also to recalling the concerns that I had maintained throughout the research for comprehensively capturing the holism and complexity of the coaching process. In reality, my second year spent with Scotland Women had given me an extended closeness to the people and places I had studied, as well as a distance from the events, activities and interactions I had experienced the season before. By being a dormant⁹ but more participatory observer in the coaching context for this additional period, I was able to reflect upon the quality of my existing data, and to compare my ongoing analysis

⁹ I collected no further fieldnotes or any other data during the second season that I spent with Scotland Women.

with new events, activities and interactions in the coaching process. As a result, I was reassured to feel that I had left nothing behind in the field; that I had observed as much as it was possible to observe, that my fieldnotes had not omitted anything of importance, and that my analysis was sensitive to the co-constructed nature of the research process. Thus, just as “being there” was critical to establishing an ethnographic picture of the coaching process (Marcus, 1998), being back there was crucial to being reflexive and to reassuring me of the quality of my work.

The previous chapters showed that Karen’s experiences of the coaching process were not accumulated within a social vacuum (Jones *et al.*, 2002). Similarly, the findings of this thesis were developed through complex social practice. In order to develop a rich picture of the coaching process I became a part of the coaching context (one of Karen’s associates) and thus, the data were a product of my relations to events, activities and people in the coaching context. In this chapter I have attempted to account for the ways these interactions shaped my findings, as well as the ways my presence and research methods impacted upon Karen’s coaching practice. Moreover, I sought to involve her in developing a collaboratively reflexive project, in order to expose my own introspections to a level of scrutiny and challenge beyond that of traditional ethnographic writing. Through these efforts, I believe that the research process and its findings have been rigorously checked and strengthened (Bourdieu, 2004).

The reader might consider that restricting reflexivity continuously undertaken throughout the research process to a single chapter at the end of this thesis lacks authenticity. Indeed, my introspections might well have accompanied each of the preceding chapters, which could have added a more immediate context to the origins of the findings presented. However, Finlay (2002a) warned against overshadowing the participant’s voice with one’s own. Like some reflexive ethnographies, I did not want this thesis to come under scrutiny for being too much a personal tale (Taylor and Winkvist, 2003). In other words, infinitely regressing over my own experiences in the previous chapters could have shifted attention away from the phenomena at the heart of the study. Instead, it was imperative to the aims of this research not to lose sight of Karen’s practice and her social world in a search for comprehending my own.

SUMMARY AND CONCLUSION

7.1: INTRODUCTION

Sports coaching researchers have typically focused upon isolated components of the whole coaching process, measuring different variables by lone research methods. The resulting diverse but fragmented literature has drawn attention to the complexity of coaches' work, but has failed to grasp its holistic scope and particularly its interrelated nature. Consequently, the personal, social and contextual contingency of coaching practice, its inherent complexity and its simultaneous breadth and depth have been overlooked. Paradoxically then, the notion that coaching is a complex, holistic and integrated process is widely acknowledged but empirically and conceptually underdeveloped. In other words, researchers have rarely treated the complexity and holism of coaching process as a problematic aspect of their studies (Lyle, 1999c). This situation has left practitioners, coach educators and researchers without a comprehensive framework to understand and positively influence coaching practice. Therefore, the purpose of this thesis was to develop a more authentic understanding of the relationship between coaching practice and the holistic complexity of the situated coaching process by examining, in detail, the site of practice itself. It was hoped that doing so would begin to bridge existing gaps between current coaching research and actual coaching practice.

The specific aims of this research were:

- To conceptualise the coaching process from the perspective of a top-level female, national rugby union team's head coach;
- To identify the elements, factors and properties that contributed to the complexity and holism of the coaching process;
- To examine how the interactions of the coach, these elements, factors and properties shaped coaching practice;
- To explore the utility of a combination of research methods within the framework of ethnography to address each of the former objectives at the level of coaching practice and in a naturalistic coaching context.

This final chapter examines the key findings of this thesis in response to these aims and objectives. Furthermore, the implications of this study for related fields are discussed, and future areas of research are proposed.

7.2: UNDERSTANDING THE COACHING PROCESS

The use of a mixed-methods research design within an ethnographic framework enabled me, as the primary research instrument, to identify the broad scope as well as the more detailed constraints and opportunities of Karen's coaching process. The resulting grounded model, as a heuristic representation of the findings, includes core themes that support elements of previous conceptualisations of the coaching process. Most notably, the coaching process was found to be constituted by personal, social and contextual factors, arising from the interactions of coach, associates and coaching context, which builds upon the CM of Côté *et al.* (1995c) and earlier work (e.g., Smoll and Smith, 1989; Chelladurai, 1990). Moreover, Karen's practice took place in three key settings (organisation, preparation and competition), which are largely similar to those identified by Côté *et al.* (1995c). That this work found complimentary central constructs to the most influential existing model (Rangeon *et al.*, 2012) and its forbears is reassuring and valuable in the field's search for a conceptual consensus.

The grounded model was also distinctive from previous conceptualisations in a number of important ways. Firstly, the coaching context framed the interactions of Karen and her associates. In this sense, rather than positioning contextual factors alongside the coach and athlete, as Côté *et al.* (1995c) represented them, everything that occurred within the coaching process was bounded and influenced by the situational factors, resources and extraneous factors that comprised Scotland Women's idiosyncratic coaching context. Indeed, as a truly situational model, this work further demonstrates the context-specific nature of the coaching process (Saury and Durand, 1998), a point which must be accompanied by the acknowledgement that other coaches, even in similar domains, will likely experience nuanced opportunities and challenges. Moreover, the present model shows that the impact of certain contextual factors can be shaped or managed by various social actors in the social field. For example, from season to season, Karen could petition for increased

funding by interacting with associates including the head of coach development and the performance manager, who influenced the SRU's annual allocations. Here, Jones and Wallace's (2005) notion of orchestration offers a useful means to understand the coach's sensitivity to their context as well as their limited but not powerless position to respond flexibly to the dynamic challenges and opportunities of the coaching process.

Secondly, for Karen as a head coach, interactions with a host of associates were essential to her work. This included the players, whose needs she considered were at the heart of her practice, but also her assistants, medical team and many others. Thus, unlike the extensive focus on the practice of the coach towards athletes in the extant literature, and notably in the CM (Côté *et al.*, 1995c), the grounded model builds upon contemporary coaching research, which views coaching as a complex social process (Jones *et al.*, 2002; Cushion and Jones, 2014). Indeed, it highlights, in a similar way to Potrac and Jones (2009a), an array of key stakeholders with whom the head coach must collaborate, negotiate and maintain relationships. For example, it was notable that Karen interacted differently with her assistants on account of their different levels of coaching experience. In this regard, the present work provides an example of how Gronn's (2000) work on distributed leadership can be usefully combined with Raven's (2008) taxonomy of power to provide a critical perspective on the complex social practice of the coaching process.

Finally, the grounded model provided a valuable conceptual metaphor to aid the thorough elucidation of the coaching process in this unique context. By aiming to contribute to a greater understanding of the complexity and holism of the coaching process, it was important not to omit, as Côté *et al.* (1995c) have been criticised for (e.g., Saury and Durand, 1998; Cushion *et al.*, 2006), an adequate explanation of the operational, dynamic and adaptive aspects of the grounded model. Hence, considerable effort and space in this thesis has been given over to the thorough description of events and interactions as they occurred in the field, and to the development of explanatory links to concepts and theory. In these ways, this work is something of a combination of the approaches that Côté *et al.* (1995c) and Cushion and Jones (2014) adopted in their representations of the coaching process. Indeed, the previous three chapters were arranged in order to progressively connect the broad

processes, factors and relations of the coaching process, with the more narrow activities, behaviours and meanings of coaching practice. Moreover, I have attempted to make clear the aspects of these things that remained relatively stable as well as those that changed over time, and to highlight in lucid detail the means of Karen's management of this relative certainty and uncertainty.

7.3: UNDERSTANDING COACHING PRACTICE

The present study is the first to report in-detail coaching practice from the context of top-level rugby union. Moreover, unlike the majority of other behavioural studies to date, data were gathered during organisation, preparation and competition, in on- and off-field settings, and over a whole season, in order to present the most comprehensive picture possible of the coaching process in action. At a broad level and given the popularity of rugby union, the development of the RCABI and analysis of practice data in this study has therefore begun to address a surprising omission in the existing coaching literature. The picture that has been developed is of a highly complex and holistic process that originated in the interactions of numerous factors and variables, and which necessitated Karen's attentive management of challenges and opportunities, along with an adaptable, responsive practice. As such, it highlights how Karen's practice was shaped by her social position as head coach, by her associates, and how she in turn influenced the practice of her players, assistants and others.

In order to pro-actively manage as much of the uncertainty created by the unstable variables of the coaching process as possible (e.g., weather, player performance, opposition), and to optimise performance and manage change in the face of more stable factors (e.g., historical playing style, competition calendar, allocated training time), Karen planned obsessively. This process provided a means for her to envisage different outcomes, develop contingencies and consider how to differentiate her practice according to player needs and the proximity of competition. It also enabled her to manage her associates' contributions to training, ensuring that she had time to take a more managerial role in overseeing the coaching process. Moreover, the planning process served as a catalyst to practice sharing, negotiation and debate as Karen and her closest associates sought to maximise their time with the

players, and to ensure a degree of consistency in their collective practice. While this work demonstrates the complex novelty of situations in the coaching process, it also supports Lyle's (2007) counterpoint to Cushion's (2007a p.396) suggestion that coaching, "has limited roots in either planning or reason". Indeed, regularity and adaptability, planned contingencies and spontaneous responses were observed in Karen's practice at different times, which is best explained by the Bourdieusian analogy of regulated improvisation. Given that the existing planning literature focusses so strongly on physical conditioning and is devoid of work from team sports (Lyle, 2010), these findings confirm the central role of planning in the coaching process and add understanding of planning procedures from a top-level rugby union coach.

By showing how Karen's behaviours and activities varied in relation to changing contextual factors over time, this research responds directly to Partington and Cushion's (2013) call for more longitudinal, season-long studies of coaching practice. For instance, the proportion of training comprising match-like Playing Form activities increased dramatically as the season progressed to its competitive focus. Indeed, Karen implemented what could be considered an increasingly "pure" realisation of the Game Sense philosophy as Scotland Women neared competition. Moreover, the methods showed how her preference for key behaviours including silent observation, questioning and feedback varied in specific activity contexts and during different phases of the season. Compared to contemporary studies of coaching practice, Karen's pedagogy was more facilitative and player-led than the traditional picture of high levels of coach-led instruction, hustling behaviours and corrective interventions. Thus, where concerns have been raised about the prevalence of traditional practice in soccer (e.g., Williams and Hodges, 2005; Cushion *et al.*, 2012b), this more positive picture of the micro-practice of the coaching process, from a previously unreported context, reinforces the important role that systematic observation has to play in further developing the field.

The present work has also extended existing procedures and findings by uniquely investigating Karen's coaching across three iterant time frames by using qualitative and quantitative methods to understand the *what*, *how* and *why* of her practice. Specifically, Karen's philosophy and intentions were established before her

activities and behaviours were measured, which was then followed by recall and reflection during stimulated recall interviews. Scrutinising the antecedents of Karen's practice in this way enabled consonance and dissonance between philosophy and practice to be identified. For example, situations were highlighted in which scolding players was deemed necessary despite Karen's stated belief in avoiding the behaviour. Thus, not only was Karen's practice held accountable to her philosophy, but the utility of popularised coaching philosophies was also examined in-situ (e.g., Game Sense, player-centredness). On the one hand, the present findings question the benefit to coaches of "philosophies" or styles of coaching that lack well-established conceptual foundations and widely-agreed guidelines and boundaries. Yet, on the other, the complexity and variance evident in the way Karen conducted, understood and expressed her practice concurs with Jones and Turner's (2006) suggestion that "paint-by-number" or law-like philosophies will be at odds with the social and practical complexities of the coaching process. As such, Light and Evans's (2013) use of habitus to explore coaches' embodied dispositions is highlighted as a potential way forward.

A host of off-pitch activities, tasks and practices were also identified as part of a more holistic picture of the coaching process. These included staff meetings, team meetings, player meetings and team talks, which each provided nuanced contexts for Karen's coaching practice. For example, performance analysis, as Groom *et al.* (2011) noted, was a key aspect of the coaching process, where video footage was used to aid player learning and their preparation for competition. Here, Problem-Based Learning (see Jones and Turner, 2006) helped to conceptualise the contribution video analysis made to off-pitch player development. Indeed, contrary to Groom and colleagues' (2011) concern that performance analysis is largely reactive, Karen's approach was largely prospective. That so many different off-pitch activities were found in the present study highlights a limitation in existing research, which has been conducted almost exclusively in training sessions and has therefore accounted for only a small part of the holistic coaching process.

Examining the coaching process during competition has also drawn attention to aspects of coaching practice not only during playing time, but before matches, at half-time and after full-time; aspects that have otherwise been overlooked to date

(Smith and Cushion, 2006). This responds to Trudel *et al.*'s. (1996) call for more comprehensive research that can identify links between coaching in training and matches. Indeed, Karen's attempts to empower players during training were directly linked to the limited input she was able to have during match play. Furthermore, as Trudel *et al.* (1996) suggested, matches were found to offer few coachable moments, with Karen finding other ways to influence decisions including communicating with her staff via radio, and taking extensive notes to guide her interventions at half time. Karen's monitoring during matches reflected a number of the interactive decision making factors underpinning adaptable coaching practice identified by Gilbert *et al.* (1999), and her use of associates to influence decision-making during matches confirms Mouchet *et al.*'s. (2013) findings in elite French rugby union.

This initial research aim and objectives have been achieved. Firstly, this thesis has provided a context-specific conceptualisation of the coaching process (*Figure 3.0*), the components of which might be used to organise the existing literature and to guide the focus(es) of future research. Secondly and related to this point, it has identified various elements, factors and properties that contributed to the complexity and holism of the coaching process, and it has demonstrated how these shaped coaching practice. Importantly, such exploratory or "bottom-up" research will likely be essential to the development of future, evidence-based recommendations for practitioners (Potrac *et al.*, 2007). Finally, this thesis has demonstrated the utility of a specific mix of methods including ethnographic participant observation, systematic coaching practice observations, audio-visual recordings, semi-structured interviews and stimulated recall interviews for investigating the coaching process. Specifically, it has highlighted a means to move beyond the reductive horizons of single- and paired-method designs and towards more holistic and authentic ways of understanding coaching practice.

In summary, this thesis has contributed to the body of knowledge in sports coaching by going some way to address the criticisms of previous research (see *Chapter 2, Review of Literature*), which failed to engage fully with the holism and complexity of the coaching process. As a result, the present work advances prior conceptions of the process that ignored the importance of diverse social interactions and contextual factors in the constitution of coaching practice. The findings of this

research are valuable precisely because they authentically and empirically capture the everyday reality of the coaching process. Most notably, they embrace the complexity inherent in what the coach's does when coaching, highlighting in detail nuances, challenges and contradictions in practice that subtly defy principles of coaching advocated in the existing literature. Indeed, this research confirms that coaches do not simply deliver behaviours and activities in a vacuum, but that practice is produced, reproduced and changed by the complex interactions of the coach, associates and coaching context.

7.4: IMPLICATIONS AND FUTURE DIRECTIONS

This research has provided further evidence of the central and triumvirate interrelationship of personal, social and contextual factors in the coaching process. These factors arose from the interactions of the coach, their associates and the coaching context. By building upon the work of Côté *et al.* (1995c) in this regard, the central components of the grounded model (*Figure 3.0*) could serve as a framework to organise the existing literature on coaching. Moreover, they could provide a means to study coaches from different sports, in other domains and from varied demographic backgrounds. This proposition is not made upon the assumption of the grounded model's universality or generalisability (see Toner and Moran, 2014). Indeed, coaching is context-specific, and this case study's grounded theory is therefore idiosyncratic (Eisenhardt, 1995). However, because coaches occupy similar social positions – similar enough for them to be recognised as “coaches” (Cushion, 2007b) – it is possible that they will share similar a habitus, albeit with, “a unique individual variant of the common matrix” (Wacquant, 2008 p.267). In other words, it is likely that there will be consonance as well as dissonance in the dispositions, values and practices acquired and embodied in the activities and behaviours of coaches' everyday lives. Accordingly the grounded model of the coaching process (*Figure 3.0*) offers a useful conceptual tool to explore other coaches' experiences of the coaching process. Specifically, future research should, “test the variation in the theory and whether it works to explain other contexts and other participants experiencing similar phenomena” (Groom *et al.*, 2011 p.31).

The present study has also extended the overly simplistic nature of much of the previous literature (Cushion *et al.*, 2006; Cushion, 2007a) by bringing to light many of the complexities inherent in undertaking the coaching process. Importantly, this more authentic representation was established empirically, using a situated, mixed-methods research design and over an extended period of time, and thus offers greater potential to support coaching's conceptual and practical development (Voight, 2007). Indeed, devising ways to improve coaching practice through professional development opportunities and coach education rest upon ascertaining the complexities of the coaching process (Cushion *et al.*, 2003). Specifically, the present analysis highlights a number of factors that practitioners should consider when planning, undertaking and reflecting upon their practice. For example, where the UKCC rugby union Level 3 requires applicants to be head coaches, the present findings uniquely identify the importance of supporting head coaches to effectively manage their relationships with a broad range of associates (e.g., assistant coaches and medical staff). Furthermore, top-level practitioners should be prepared for an eclectic mix of related on- and off-pitch activities including performance analysis, planning meetings and engaging with the media, not just the usual suspects of technical and tactical content knowledge (Cushion *et al.*, 2003). Moreover, given the current emphasis placed on the Game Sense philosophy in rugby coach education (Reid, 2003; Light, 2013; Harvey and Jarrett, 2014), the present findings suggest that coaches should develop a critical awareness of the congruence of different activity characteristics to specific outcomes (e.g., skill transfer, motivation, physical conditioning). It is not enough to simply tell coaches *what* to coach (i.e., games), they must develop a critical understanding of *how* to coach in different ways and *why*.

It is clear that important cognitive processes underpinned Karen's functional practice, which was characterised by adaptive action (and inaction), produced in order to address challenges and opportunities created by the complex coaching context. For example, during training sessions, she chose when to "step in" and when to let situations unfold without interference. Developing a more detailed conceptualisation of the decision making processes at the micro-level of practice was beyond the objectives and scope of the present project. However, the cognitive component of coaching practice is clearly essential to effective practice (Gilbert *et*

al., 1999; Debanne *et al.*, 2009), and empirical research into the topic is limited (Vergeer and Lyle, 2009). Analysing coaches' naturalistic, discretionary judgements may be one route forwards (Abraham and Collins, 2011), with the stimulated recall methods of this study offering a means to develop evidence of how decisions are actually made (Lyle, 2003). Indeed, the prevalence of uncertainty, of ill-structured problems and of a reliance on intuition in coaching would seem to make it an ideal context to extend the professional judgment and decision making literature (Martindale and Collins, 2005). Relatedly, this work has again stressed the significance of experiential learning in the production and development of coaching practice (Cushion *et al.*, 2010). Indeed, it provides an insight into the learning activities of a UK-based coach, which is much needed with the vast majority of investigations to date coming from Canada and the USA (Cushion *et al.*, 2010). Future investigations of naturalistic decision making would need to account for the relationship between the problematic situations that coaches encounter and the knowledge and experience brought to bear in developing viable solutions (Martindale and Collins, 2005).

Karen's feelings of loneliness and isolation in the coaching process were also highlighted despite the SRU providing a mentor to support her development and progress through the Level 3 coaching course. In fact, Karen's dissatisfaction underpinned her desire to share and engage so keenly in a research process that she perceived would help to improve her practice. This possibly highlights differences in the relations she maintained with her mentors and me as a researcher. Therefore, future research should examine the importance of emotions in coaching and mentoring relationships, building upon Jones *et al.*'s. (2009) and Cushion's (2006) recognition that supported learning (i.e., coaching and mentoring) requires positive synergy between individuals. Here, the work of Hochschild on emotional labour (see Potrac and Marshall, 2011) could help to examine the coach's need to project an image of relaxed calm for the benefit of the players or media despite being exhausted and emotionally drained. Moreover, Blau's notion of social exchange (see Jones and Bailey, 2011) has been highlighted as a useful framework to understand the relations developed between researcher and coach, which might be extended to examine mentoring relationships in coaching.

In response to Gilbert's (2007) astute call for coaches to be more active research collaborators, this work demonstrates some of the challenges and opportunities arising from researcher-practitioner collaboration. Indeed, the breadth and depth of understanding developed of the coaching process in this thesis was only possible because Karen was not treated as the "other", someone to simply be studied from a distance (Gilbert, 2007). Instead, Karen worked with me to help refine the research design to "fit" with the challenges of her coaching context, and she participated reflexively in the interpretation of data. In addition, the SR methods of this work catalysed for Karen a process analogous to participatory action research. Specifically, she was engaged as an inquiring collaborator where she might otherwise have been classed as the research subject (Reason and Bradbury, 2013). Moreover, SR took Karen through cycles of action and reflection, where we made sense of her experiences together, which led her to make plans for further action (Reason and Bradbury, 2013). Thus, the stimulated recall process, as Lyle (2003) noted, is a valuable tool for the naturalistic investigation of coaching practice, which can act simultaneously for the purposes of research and educational objectives. Therefore, with an emphasis being placed upon the decision making and expertise of coaches in the literature (e.g., Abraham and Collins, 2011; Nash *et al.*, 2012), and with the ability of the method to connect practice and cognitions, stimulated recall methods hold a great deal of promise for future research.

The RCABI is also highlighted as a valid and fruitful tool to develop a broader picture of coaching practice in rugby union. Specifically, the RCABI provides a means to vividly describe and analyse the reality of rugby coaches' context-specific, on-field activities and behaviours, in preparation and competition settings. Moreover, it can contribute to increasingly nuanced research designs, which examine the interactions of cognitions and actions before, during and after practice (Cushion *et al.*, 2012b). Through such work, coaches' activities and behaviours should be examined against their stated philosophies and intentions, enabling the practical and conceptual foundations of different approaches (e.g., Games Sense) to be underpinned by naturalistically developed pictures of coaching practice. Though future studies could include even more detailed categories of behaviour - convergent and divergent questioning, for example (see Cushion *et al.*, 2012) - to distinguish

specific types of practice associated with different coaching environments (e.g. autonomy supportive, controlling etc.). Similar approaches could be used to further examine the relations between head and assistant coaches, and how they shape the coaching process. Social network analysis (e.g., Lusher, Robins and Kremer, 2010) for example, could deepen our understanding of the coach's different relationships within the coaching process. Indeed, the subtle transitions of power that develop between coach and associates within the different settings and as a result of their different roles is of particular interest (Potrac and Jones, 2009a).

Building upon the present findings, further research is required that accounts for the true scope of the coaching process by going beyond the coaching process in training sessions. Like Jones (2006; 2009) in the changing room and the corridors of a national training centre, and Groom *et al.* (2012) in performance analysis sessions, this work has highlighted a number of activities and tasks that comprise the holistic coaching process. Thus, it would appear that much could be learned of the planning practices of team sports coaches (Lyle, 2010), as well as the use of performance analysis by coaches in different contexts. Moreover, where an emphasis in the existing literature has been placed upon analysing coach-athlete interactions in training and competition, future studies should examine their relations away from the pitch; the phone calls, casual conversations and more formal meeting that contribute to the coaching process. It is only by engaging with these less acknowledged details of coaching that the construction and complexity evident within the coaching process will be revealed (Cushion, 2007a).

Although reporting a complete picture of the coaching process in individual cases may not be possible, I disagree that we remain a long distance from, "a fuller understanding of its complexity" (Bush and Silk, 2010 p.554). By building on the work of Saury and Durand (1998) among others (e.g., Jones, 2009; Potrac and Jones, 2009a; Nash and Sproule, 2011; Cushion and Jones, 2014), this research has developed a conceptual framework that accounts for a multitude of variables involved in the coaching process. Indeed, with a view to strengthening coaching's conceptual foundations, researchers must continue to identify the common and nuanced nature of the coaching process – its sameness and uniqueness (Cushion *et al.*, 2006). Therefore, ideographic studies should to be undertaken in many more

contexts. It is essential that this work foregrounds coaches' personal contributions to the coaching process; research methods must be sensitive to their biographies or life stories (Strean, 1998; Jones *et al.*, 2003), philosophies, education and development (Nash *et al.*, 2008; Nash and Sproule, 2011; Callary *et al.*, 2012). Moreover, to understand the situational nuances of the coaching process and their impact on coaching practice, vivid descriptions of different coaching environments, replete with negotiated and contested social relations are required (Mallett, 2007; Abraham and Collins, 2011). It is only by identifying commonalties and idiosyncrasies as they relate to the interactions of the different people and places which constitute coaching contexts that more authentically holistic and complex understanding of the coaching process will be developed.

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APPENDIX 1.0

Scotland Women staff roles and responsibilities.

Role	Areas of Responsibility
Performance Manager	Oversee programme Oversee tour management Player discipline
SW Team Manager	Oversee logistics / planning Management of players Game management (player prep) Player discipline
SW Head Coach	Head Coach Game plan / strategy delivery Forwards set piece Devise performance plan with Performance Manager Oversee sessional planning and content delivery Selection feedback Aims for matches / key performance indicators Player feedback / profiling / action plans Player discipline / welfare Team culture / values
SW Assistant Coach	Oversee skills clinic / specialist coaching session programme Defence Continuity in attack - backs phase play Referee support / liaison Player profiling / action plans - back specific Player feedback / welfare
SW Video Analyst (Backs coach)	Video analysis of match / debrief Kick chase strategy and delivery of specialist kicking sessions Backs play - set piece/phases Counter attack principles Match analysis and debrief Player feedback / welfare
SW Physio	Treatment of players Player liaison Player recovery protocols Medical monitoring
SW Doctor	Treatment of players Player liaison Player recovery protocols Medical monitoring Weigh in's / monitoring hydration
SW S&C coach	Production of player S&C programmes / continual review Fitness testing and analysis Warm ups at SW squad sessions Assist with recovery / hydration set up Warm subs up at matches Water carrier (pitch side) Cool down / recovery strategies Nutrition and hydration post match – monitor players
Specialist Coach	Scrummage and lineout specialist sessional input
Specialist Coach	Kicking sessional input
Specialist Coach	Contact and tackle area specialist input Continuity
Nutritionist	Performance nutritionist - monitor and review player nutrition